

# List of All Chemicals

## P Panax quinquefolius (Araliaceae)

### Common name(s)

Ginseng; American Ginseng

### How used

Food

\*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Part	All parts ...	Low PPM	High PPM	StdDev	*Reference
1,3-DIMETHYL-ACRYLIC-ACID	Plant	--	--			*
1,9-CIS-HEPTADECADIENE-1,6-DIYN-3-OL	Plant	--	--			*
1,9-CIS-HEPTADECADIENE-4,6-DIYN-3-OL	Plant	--	--			*
1-2-9-10-DIEPOXY-3-OXO-HEPTADECA-4-6-DIYNE	Root	--	1.7			*
1-HEPTADECAENE-4,6-DIYN-3,8,10-TRIOL	Plant	--	--			*
1-HEPTADECAENE-4,6-DIYN-3,8-DIOL	Plant	--	--			*
1-HYDROXY-9-10-EPOXY-C-OXO-HEPTADECA-4-6-DIYNE	Root	--	7.1			*
1-OCTACOSANOL	Plant	--	--			*
2-PHENYL-DODECANE	Root Essent. Oil	--	41500.0			*
22-TRANS-DEHYDRO-24-METHYL-CHOLESTEROL	Seed Oil	--	--			*
24-ETHYL-22-TRANS-DEHYDRO-CHOLESTEROL	Seed Oil	--	--			*
24-ETHYL-24(25)-DEHYDRO-CHOLESTEROL	Seed Oil	--	--			*
24-ETHYL-CHOLESTEROL	Seed Oil	--	--			*
24-METHYL-CHOLESTEROL	Seed Oil	--	--			*
24-METHYLENE-24-DIHYDRO-LANOSTEROL	Seed Oil	--	--			*
24-METHYLENE-CYCLOARTANOL	Seed Oil	--	--			*
<b>Activities (5)</b>						
Antiinflammatory						
Antinociceptive						
Antirheumatic 2-5 mg/man						
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.					
Hypocholesterolemic						
28-ISOFUCOSTEROL	Seed Oil	--	--			*
3-HYDROXY-5-METHYL-GAMMA-PYRONE	Plant	--	--			*
3-PHENYL-DODECANE	Root Essent. Oil	--	16700.0			*
3-PHENYL-UNDECANE	Root Essent. Oil	--	16700.0			*
4-PHENYL-DODECANE	Root Essent. Oil	--	15600.0			*
6(R),7(S)-EPOXY-TETRADECA-1,3-DIYNE	Root	--	--			*
6-7-EPOXY-TETRADECA-1-3-DIEN	Root	--	2.8			*
8-ACETOXY-9,10-EPOXYHEPTADECA-4,6-DIYN-1-EN-3-OL	Root	--	2.2			*
9,10-EPOXY-3-HYDROXYHEPTADECA-1-EN-4,6-DIYNE	Plant	--	--			*
ACETIC-ACID	Plant	--	126.0	1.41		*

**Activities (16)**

Acidulant	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antibacterial 5,000 ppm	
Antitotic	Martindale's 28th
Antisalmonella	
Antivaginitic 1-2%	
Expectorant	Martindale's 28th
Fungicide	Martindale's 29th
Keratitogenic	
Mucolytic	Martindale's 29th
Osteolytic	
Perfumery FEMA 6,000-40,000 ppm	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Pesticide	
Protisticide	Martindale's 29th
Spermicide	Martindale's 28th
Ulcerogenic	HerbalGram No. 20, page 9.
Verrucolytic	

ACETYL-PANAXYDOL

Root -- 2.8 1.0 \*

ADENINE

Plant -- -- -- \*

**Activities (11)**

Antianemic 1.5 g/day	Martindale's 28th
Antigranulocytopenic	
Antiviral	
CNS-Stimulant	
Diuretic	
Hyperuricemic	Martindale's 28th
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
Lithogenic	
Myocardiotonic	
Pesticide	
Vasodilator	

ADENOSINE

Plant -- -- -- \*

**Activities (28)**

Analgesic	
Antiaggregant	
Antiarrhythmic	Merck 11th Edition
Antidiuretic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Antiedotoxic 500 mg/kg ipr mus	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.
Antihypertensive	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Antiinsomniac	
Antilipolytic	
Antispasmodic	
Antitachycardic 50-250 ug/kg/ivn	Martindale's 29th
Anxiolytic	
Arteriodilator	
Glucagonogenic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Hypocholesterolemic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Hypoglycemic	
Hypotensive	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Immunomodulator	
Insulinic	
Laxative	
Lipolytic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Myorelaxant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
PAF-Inhibitor IC50=90 nM	
PAF-Inhibitor 0.024 ug/ml	
Pyrogenic 0.09 mg/kg ivn hmn	Conradson, T. B. G., Dixon, C. M. S., Clarke, B., Barnes, P. J. 1987. Cardiovascular Effects of Infused Adenosine in Man: Potentiation by Dipyridamole. <i>Acta Physiol Scand</i> , 129(3): 387-391.
Respirastimulant	Martindale's 29th
Secretomotor	
Sedative	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Vasodilator	

## ALANINE

Plant 209.0 2250.0 -1.56 \*

**Activities (3)**

Antioxidant	Larson, R.A. 1987. Review Article Number 30. The Antioxidants of Higher Plants. <i>Phytochemistry</i> . 27: 969-978.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Oxidant	Larson, R.A. 1987. Review Article Number 30. The Antioxidants of Higher Plants. <i>Phytochemistry</i> . 27: 969-978.

## ALLOISOLEUCINE

Plant -- -- \*

## ALPHA-AMINO-BUTYRIC-ACID

Plant -- -- \*

## ALPHA-CARYOPHYLLENE-ALCOHOL

Root Essent. Oil 1457.0 23135.0 \*

## ALPHA-CURCUMENE

Root Essent. Oil 1626.0 8677.0 -1.0 \*

**Activities (3)**

Antiinflammatory	
Antitumor	
Hypotriglyceridemic	

## ALPHA-ELEMENE

Root Essent. Oil 3352.0 19550.0 1.0 \*

## ALPHA-FRUCTOSE

Root -- -- \*

## ALPHA-GLUCOSE

Root -- -- \*

## ALPHA-HUMULENE

Plant -- -- \*

**Activities (2)**

Antitumor	Zheng, G-Q., Kenney, P.M., and Lam, L.K.T. Sesquiterpenes From Clove ( <i>Eugenia caryophyllata</i> ) As Potential Anticarcinogenic Agents. <i>Journal of Natural Products</i> 55(7): 999-1003, 1992.
Perfumery	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.

ALPHA-MALTOSE	Root	--	--	--	*
ALPHA-MUROLENE	Root Essent. Oil	2007.0	9855.0	1.0	*
ALPHA-NEOCLOVENE	Plant	--	--	--	*
ALPHA-PANASINSENE	Plant	--	--	--	*
ALPHA-PYRROLIDONE	Plant	--	--	--	*
ALPHA-SELINENE	Plant	--	--	--	*
<b>Activities (3)</b>					
Antimalarial IC50=>50 ug/ml	Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp.				
Antiplasmodial IC50=>50 ug/ml	Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp.				
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry				
ALUMINUM	Plant	24.0	285.0	-0.19	*
<b>Activities (5)</b>					
Antisilicotic	Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987.				
Antivaginitic	Martindale's 28th				
Candidicide	Martindale's 28th				
Encephalopathic	Martindale's 29th				
Pesticide					
AMINO-ACIDS	Flower	--	--	--	*
AMINO-ACIDS	Stem	--	--	--	*
AMINO-ACIDS	Seed	--	--	--	*
AMINO-ACIDS	Leaf	--	--	--	*
AMINO-ACIDS	Root	--	--	--	*
AMYLASE	Plant	--	--	--	*
<b>Activities (1)</b>					
Sedative					
ARABINOFURANOSE	Plant	--	--	--	*
ARABINOSE	Plant	--	--	--	*
ARASAPONIN-A	Plant	--	--	--	*
ARASAPONIN-B	Plant	--	--	--	*
ARGININE	Plant	11530.0	17615.0	1.0	*
<b>Activities (14)</b>					
Antidiabetic?	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.				
Antiencephalopathic	Martindale's 29th				
Antihepatitic	Martindale's 29th				
Antihypertensive					
Antiimpotence					
Antiinfertility 4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antioxidant?					
Aphrodisiac 3 g/day					
Diuretic					
Hypoammonemic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
NO-Genic					
Pituitary-Stimulant					
Spermigenic 4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Vasodilator					
ARSENIC	Plant	0.25	0.44	-0.43	*

**Activities (2)**

Anorexic	Forest H. Nielsen, USDA, Grand Forks, various publications.
Pesticide	
ASCORBIC-ACID	Plant
	--
39.0	-0.58
*	
<b>Activities (112)</b>	
Acidulant FEMA 6,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Aldose-Reductase-Inhibitor	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Analgesic 5-10 g/day	
Angiotensin-Receptor-Blocker	
AntiAGE 2,000 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
AntiCFS 500-1,000 mg	
AntiCTS 1,000 mg 3x/day	
AntiCrohn's 50-100 mg/day/orl/man	Martindale's 29th
AntiLyme 500-2,000 mg	
AntiRaynaud's 500 mg 1-2x/day	
Antiaggregant	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antiajaging 400 mg/day	
Antiallergic	
Antialzheimeran 2,000-6,000 mg/day	
Antiarthritic 0.2-1 g/day	
Antiasthmatic 1,000 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiatherosclerotic	
Antibacterial	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticataract 350 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticataract 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Anticataract 1 g 3x/day	
Anticervicaldysplastic 1,000-2,000 mg/day	
Anticlimacteric 500-5,000 mg/day	
Anticold 1-2 g/man/day	
Antidecubitic 500 mg/man/2x/day	Martindale's 28th
Antidementia	
Antidepressant 2,000 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidiabetic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidote (Aluminum)	Economic & Medicinal Plant Research, 6: 189.
Antidote (Cadmium)	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Lead)	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Paraquat)	Martindale's 28th
Antieczemic 3.5-5 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiedemic 1 g/man/day	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiencephalitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiendometriotic 2,000 mg/day	
Antifatigue 500-1,000 mg	
Antifibrotic 1,000-2,000 mg	
Antigallstone 1,000-3,000 mg/day	
Antigastritic	
Antigingivitic	
Antiglaucomic 2 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antihangover 1,000 mg	
Antihemorrhagic 1 g/man/day	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihepatitic 2-6 g/man/day	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihepatotoxic	Economic & Medicinal Plant Research, 6: 189.
Antiherpetic 1-5 g/day	
Antihistaminic 2 g/day orl man	
Antihypertensive	
Antiinfertility 1 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinflammatory	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antileptic 1.5 g/man/day	Martindale's 28th

Antilithic 1,000-3,000 mg/day	
Antimaculitic	
Antimeasles	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antimenopausal 500-5,000 mg/day	
Antimigraine	Martindale's 29th
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antineuramidase	
Antinitroscopic 1 g/man/day	Martindale's 28th
Antiobesity 1 g 3x/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiorchitic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antiosteoarthritic 1 g 2x/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiosteoporotic 500 mg/day	
Antioxidant 100 ppm	
Antiparkinsonian 1 g 2-3x/day	
Antiparotitic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antiperiodontitic 1 g 2x/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antipneumonic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antipodriac	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antipoliomyelic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antipyretic	Economic & Medicinal Plant Research, 6: 189.
Antiradicular	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Antiretinotic	
Antirheumatic	
Antirhinitic 1,000 mg 3x/day	
Antiscorbutic 10 mg/man/day	Martindale's 28th
Antiseptic MIC=3.3-217 mg/ml	Martindale's 28th
Antiseptic 4-8 g/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Antishingles	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antispasmodic 500-5,000 mg/day	
Antistress 500-1,000 mg	
Antisyndrome-X 1-4 g/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Antitumor (Gastric)	
Antitumor (Lung)	
Antiulcer	
Antiviral 1-5 g/day	
Apoptotic 1-10 mM	
Asthma-preventive 1,000 mg/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Beta-Adrenergic Receptor Blocker	
Beta-Glucuronidase-Inhibitor 1.5 g/day/man	
Calcium-Antagonist	
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	
Cold-preventive 1-2 g/day	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Collagenic	
Detoxicant	
Diuretic 700 mg/man/orl	
Fistula-Preventive	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Hypocholesterolemic 300-1,000 mg/day	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Hypoglycemic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Hypotensive 1,000 mg/man/day	
Immunomodulator	
Immunostimulant	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Interferonogenic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Lithogenic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Mucolytic 1 g/woman/day	Martindale's 28th
Pesticide	
Uricosuric 4 g/man/day	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Urinary-Acidulant	Martindale's 29th
Vasodilator	
Vulnerary	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).

ASPARAGINE	Plant	--	--	--	*
<b>Activities (2)</b>					
Antisickling	Ekeke, G.I. and Shode, F.O. 1988. Phenylalanine is the Predominant Antisickling Agent in <i>Cajanus cajan</i> Seed Extract. <i>Planta Medica</i> 56(1): 41, 1990.				
Diuretic					
HerbalGram No. 17.					
ASPARTIC-ACID	Plant	1265.0	4310.0	-1.39	*
<b>Activities (3)</b>					
Antimorphinic	Martindale's 28th				
Neuroexcitant	Martindale's 28th				
Roborant	Merck 11th Edition				
AVENASTEROL	Seed Oil	--	--	--	*
BENZOIC-ACID	Plant	--	--	--	*
<b>Activities (20)</b>					
Allergenic	Martindale's 28th				
Anesthetic					
Antibacterial 33-1,250 ppm					
Antibacterial MBC=800 ug/ml					
Antitotic	Martindale's 28th				
Antipyretic					
Antisalmonella MIC=800 ug/ml					
Antiseptic 800 ug/ml					
Antiyeast MFC=1,600 ug/ml					
Choleretic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Expectorant					
FLavor FEMA 250	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry				
Fungicide MFC=1,600 ug/ml					
Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.				
Pesticide					
Phytoalexin	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Tyrosinase-Inhibitor ID50=710 uM					
Tyrosinase-Inhibitor ID50=640 uM					
Uricosuric					
Vulnerary					
BETA-AMINO-ISOBUTYRIC-ACID	Plant	--	--	--	*
BETA-AMINOBUTYRIC-ACID	Plant	--	--	--	*
BETA-AMYRIN	Seed Oil	--	--	--	*
<b>Activities (9)</b>					
Analgesic					
Antiedemic IC27=40 mg/kg ipr rat					
Antiinflammatory					
Antinociceptive					
Antiulcer					
Gastroprotective					
Hepatoprotective					
Larvicide					
Mosquitocide					
BETA-BISABOLENE	Root Essent. Oil	6251.0	58670.0	1.71	*

**Activities (6)**

Abortifacient

Antirhinoviral  
IC50=1,800?

Denyer, C.V., Jackson, P., Loakes, D.M., Ellis, M.R., and Yound, D.A.B. Isolation of Antirhinoviral Sesquiterpenes From Ginger (*Zingiber officinale*). *Journal of Natural Products*, 57(5): 658-662, 1994.

Antigelcer IC57=100  
mg/kg

Yamahara, J., et al. Stomachic principles in ginger. II. Pungent and anti-ulcer effects of low polar constituents isolated from ginger, the dried rhizoma of... *Yakugaku Zasshi* 112: 645-655 (1992).

Antiviral  
IC50=1,800?

Denyer, C.V., Jackson, P., Loakes, D.M., Ellis, M.R., and Yound, D.A.B. Isolation of Antirhinoviral Sesquiterpenes From Ginger (*Zingiber officinale*). *Journal of Natural Products*, 57(5): 658-662, 1994.

Perfumery

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Stomachic

BETA-CUBEBENE	Root Essent. Oil	997.0	13216.0	1.0	*
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BETA-ELEMENE	Plant	--	--	--	*
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**Activities (5)**

Anticancer (Cervix)

Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987.

Antigliomic

Antiproliferant

Antitumor (Cervix)

Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987.

Apoptotic

BETA-FARNESENE	Root Essent. Oil	--	260500.0	1.0	*
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BETA-FARNESENE	Plant	--	--	--	*
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BETA-FRUCTOSE	Root	--	--	--	*
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BETA-GLUCOSE	Root	--	--	--	*
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BETA-GURJUNENE	Root Essent. Oil	4908.0	78900.0	1.0	*
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BETA-HUMULENE	Plant	--	--	--	*
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BETA-MAALIENE	Root Essent. Oil	4938.0	6134.0	--	*
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BETA-MALTOSE	Root	--	--	--	*
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BETA-N-OXALO-L-ALPHA-BETA-DIAMINOPROPIONIC-ACID	Root	--	200.0	--	*
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BETA-NEOCLOVENE	Plant	--	--	--	*
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BETA-PANASINSENE	Plant	--	--	--	*
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BETA-SANTALENE	Plant	--	--	--	*
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**Activities (2)**

Antiinflammatory

Perfumery

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

BETA-SELINENE	Plant	--	--	--	*
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**Activities (3)**Antimalarial IC50=>50  
ug/ml

Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp.

Antiplasmodial  
IC50=>50 ug/ml

Rukunga, G. and Simons, A. J.: 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp.

Perfumery

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

BETA-SITOSTEROL	Root	--	--	--	*
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## Activities (47)

Androgenic	
Angiogenic	
Anorexic	Martindale's 28th
Antidiademonic	Merck 11th Edition
Antiandrogenic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antibacterial	Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 155.
Anticancer (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103.
Anticancer (Cervix)	
Anticancer (Lung)	
Antiedemic IC54=320 mg/kg orl	
Antiestrogenic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Antifertility	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antigonadotrophic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antihyperlipoproteinemia	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antiinflammatory	
Antileukemic	
Antilymphomic	
Antimutagenic 250 ug/ml	
Antiphidic 2.3 mg mus	Economic & Medicinal Plant Research, 5: 363.
Antioxidant IC44=10 uM	
Antiprogestational	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antiprostaglandin 30 mg/day/12 wks	
Antiprostatadenomic	Merck 11th Edition
Antiprostatic 10-20 mg 3 x/day/orl man	
Antipyretic	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Antitumor (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103.
Antitumor (Cervix)	
Antitumor (Lung)	
Antiviral	Abid Ali Khan, M.M., Jain, D.C., Bhakuni, R.S., Zaim, M., and Thakur, R.S. 1991. Occurrence of some antiviral sterols in <i>Artemisia annua</i> . <i>Plant Science</i> , 75: 161-165, 1991.
Apoptotic	
Artemicide LC50=110 ppm	Jung, J.H., Pummangura, S., Chaichantipyuth, C., Patarapanich, C., and McLaughlin, J.L. 1989. Bioactive Constituents of <i>Melodorum fruticosum</i> . <i>Phytochemistry</i> . 29(5): 1667-1670. 1990.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 155.
Caspase-8-Inducer	
Estrogenic	
Febrifuge	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Gonadotrophic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Hepatoprotective	
Hypocholesterolemic 2-6 g/man/day/orl	Martindale's 30th
Hypocholesterolemic 9-3,330 mg/man/day/orl	Martindale's 28th
Hypoglycemic	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Hypolipidemic 2-6 g/day	
Pesticide	
Spermicide	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Ulcerogenic 500 mg/kg ipr rat	

BETA-SITOSTEROL

Plant

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## Activities (47)

Androgenic	
Angiogenic	
Anorexic	Martindale's 28th
Antiadenomic	Merck 11th Edition
Antiandrogenic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antibacterial	Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 155.
Anticancer (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103.
Anticancer (Cervix)	
Anticancer (Lung)	
Antiedemic IC54=320 mg/kg orl	
Antiestrogenic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Antifertility	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antigonadotrophic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antihyperlipoproteinaemic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antiinflammatory	
Antileukemic	
Antilymphomic	
Antimutagenic 250 ug/ml	
Antiophidic 2.3 mg mus	Economic & Medicinal Plant Research, 5: 363.
Antioxidant IC44=10 uM	
Antiprogestational	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antiprostaglandin 30 mg/day/12 wks	
Antiprostatadenomic	Merck 11th Edition
Antiprostatic 10-20 mg 3 x/day/orl man	
Antipyretic	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Antitumor (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103.
Antitumor (Cervix)	
Antitumor (Lung)	
Antiviral	Abid Ali Khan, M.M., Jain, D.C., Bhakuni, R.S., Zaim, M., and Thakur, R.S. 1991. Occurrence of some antiviral sterols in <i>Artemisia annua</i> . <i>Plant Science</i> , 75: 161-165, 1991.
Apoptotic	
Artemicide LC50=110 ppm	Jung, J.H., Pummangura, S., Chaichantipyuth, C., Patarapanich, C., and McLaughlin, J.L. 1989. Bioactive Constituents of <i>Melodorum fruticosum</i> . <i>Phytochemistry</i> , 29(5): 1667-1670. 1990.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 155.
Caspase-8-Inducer	
Estrogenic	
Febrifuge	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Gonadotrophic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Hepatoprotective	
Hypocholesterolemic 2-6 g/man/day/orl	Martindale's 30th
Hypocholesterolemic 9-3,330 mg/man/day/orl	Martindale's 28th
Hypoglycemic	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Hypolipidemic 2-6 g/day	
Pesticide	
Spermicide	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Ulcerogenic 500 mg/kg ipr rat	

BETA-SITOSTEROL-GLYCOSIDE	Plant	--	--	*
BICYCLOGERMACRENE	Plant	--	--	*
BIOTIN	Plant	1.0	9.0	1.0

**Activities (4)**

Antialopelcic	
Antidermatitic 3 mg/2x/day	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antineuronalgic	
Antiseborrheic 3 mg/2x/day	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

**BORON**

Plant 24.0 96.0 0.14 \*

**Activities (4)**

Androgenic 3 mg/man/day	
Antiosteоarthritic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiosteoporotic 3 mg/man/day	
Estrogenic 3 mg/man/day	

**BUTYROSPERMOL**

Seed Oil -- -- \*

**CALCIUM**

Plant 2340.0 10800.0 -0.3 \*

**Activities (28)**

AntiPMS 1 g/day	
Antiallergic 500 mg/day	
Antianxiety	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiarrhythmic 500-1,500 mg	
Antiarthritic 1,000 mg/day	
Antiatherosclerotic 500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticlimacteric 1,000-1,500 mg/day	
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Aluminum)	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Lead)	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihyperkinetic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive	
Antiinsomniac	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antimenopausal 1,000-1,500 mg/day	
Antiobesity	
Antiosteoporotic 500-2,000 mg/day	
Antiperiodontitic 750 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antirheumatic 1,000 mg/day	
Antistress 500-1,500 mg/day	
Antitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anxiolytic 500-1,500 mg/day	
Calcium-Channel-Blocker	
Diuretic	
Hypocholesterolemic 500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Hypotensive 1 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Laxative 1,000-1,200 mg	
Tranquilizer 500-1,500 mg/day	
Vasodilator	

**CALCIUM-POLYURONIDE**

Plant -- -- \*

**CAMPESTEROL**

Plant -- -- \*

**Activities (2)**

Antioxidant IC37=10 uM	
Hypocholesterolemic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

**CAPROIC-ACID**

Root Essent. Oil -- 28600.0 \*

**Activities (1)**

Irritant

**CARBOHYDRATES**

Plant -- 700000.0 0.18 \*

**CARYOPHYLLENE**

Plant -- -- \*

**Activities (31)**

Aldose-Reductase-Inhibitor	
Allergenic	
Analgesic	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Antiacne	
Antiasthmatic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Antibacterial	
Anticariogenic MIC=>1,600 ug/ml	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against <i>Streptococcus mutans</i> . J. Agric. Food Chem. 41: 1102-1105.
Antidermatitic	
Antiedemic	Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' ( <i>Lavandula latifolia</i> Vill.)2). Chem. Pharm. Bull. 38(8): 2283-2284, 1990.
Antifeedant 500 ppm	Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.
Antiinflammatory IC50=100 uM	Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' ( <i>Lavandula latifolia</i> Vill.)2). Chem. Pharm. Bull. 38(8): 2283-2284, 1990.
Antileishmanic	
Antionychyotic	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Antiproliferant	
Antispasmodic	
Antistaphylococccic	
Antistreptococccic	
Antitumor	Zheng, G-Q., Kenney, P.M., and Lam, L.K.T. Sesquiterpenes From Clove ( <i>Eugenia caryophyllata</i> ) As Potential Anticarcinogenic Agents. Journal of Natural Products 55(7): 999-1003, 1992.
Antiulcer	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Candidicide	
FLavor FEMA 20-200	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	
Gastroprotective	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Insectifuge	
Irritant	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Larvicide	
Mosquitocide	
Perfumery	Merck 11th Edition
Pesticide	
Sedative	
Termitifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

**CARYOPHYLLENE**

Root Essent. Oil

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8670.0

-1.0

\*

**Activities (31)**

Aldose-Reductase-Inhibitor	
Allergenic	
Analgesic	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Antiacne	
Antiasthmatic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Antibacterial	
Anticariogenic MIC=>1,600 ug/ml	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against <i>Streptococcus mutans</i> . J. Agric. Food Chem. 41: 1102-1105.
Antidermatitic	
Antiedemic	Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' ( <i>Lavandula latifolia</i> Vill.)2). Chem. Pharm. Bull. 38(8): 2283-2284, 1990.
Antifeedant 500 ppm	Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.
Antiinflammatory IC50=100 uM	Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' ( <i>Lavandula latifolia</i> Vill.)2). Chem. Pharm. Bull. 38(8): 2283-2284, 1990.
Antileishmanic	
Antionychytic	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Antiproliferant	
Antispasmodic	
Antistaphylococcic	
Antistreptococcic	
Antitumor	Zheng, G-Q., Kenney, P.M., and Lam, L.K.T. Sesquiterpenes From Clove ( <i>Eugenia caryophyllata</i> ) As Potential Anticarcinogenic Agents. Journal of Natural Products 55(7): 999-1003, 1992.
Antiulcer	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Candidicide	
FLavor FEMA 20-200	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	
Gastroprotective	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Insectifuge	
Irritant	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Larvicide	
Mosquitocide	
Perfumery	Merck 11th Edition
Pesticide	
Sedative	
Termitifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

**CHOLESTEROL**

Seed Oil

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**Activities (1)**

Antioxidant IC43=10 uM

**CHOLINE**

Plant

1000.0

2000.0

-1.18

\*

**Activities (20)**

Antialzheimeran	5-16 g/man/day				
Antichoreic		Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.			
Anticirrhotic	6,000 mg/man/day				
Anticystinuric					
Antidementia					
Antidiabetic					
Antidyskinetic	150-200 mg/kg/man/day	Martindale's 28th			
Antihomocysteine					
Antimanic	15-30 g/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).			
Antinociceptive					
Antisteatotic					
Cardiodepressant					
Cerebrotonic					
Cholinergic		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.			
Hepatoprotective					
Hypotensive					
Ileorelaxant					
Lipotropic					
Memorigenic					
Parasympathomimetic (1/1,000th acetylcholine)		Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.			

## CINNAMIC-ACID

## Plant

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**Activities (18)**

Aldose-Reductase-Inhibitor 4 ug/ml (weak activity)	Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. <i>Sankyo Kenkyusho Nempo</i> , 43: 99-110.
Allergenic	
Anesthetic	
Antibacterial	Martindale's 28th
Antiinflammatory	
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antispasmodic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Choleretic	
Dermatitogenic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
FLavor FEMA 4-40	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	
Herbicide	
Laxative	
Lipoxygenase-Inhibitor	
Pesticide	
Tyrosinase-Inhibitor ID50=700 uM	
Vermifuge	

## CIS-BETA-FARNESENE

## Root Essent. Oil

4961.0

5279.0

\*

## CITRIC-ACID

## Plant

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3000.0

-0.52

\*

**Activities (23)**

Allergenic	
Alpha-Amylase-Inhibitor	
Antiphthic 20,000 ppm	Martindale's 28th
Antiatherosclerotic	
Antibacterial	
Anticalculic	
Anticoagulant	Merck 11th Edition
Antileishmanic	
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antioxidant Synergist	Merck 11th Edition
Antiseborrheic	
Antiseptic	Martindale's 29th
Antitubercular	
Antitumor	Economic & Medicinal Plant Research, 6: 235.
Disinfectant	Martindale's 29th
FLavor FEMA 370-4,400	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Hemostat	
Irritant	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Laxative?	Lawrence Review of Natural Products, Sep-91.
Litholytic	Martindale's 29th
Mycobactericide	
Odontolytic	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Refrigerant	Martindale's 28th

## COBALT

Plant 0.06 0.44 -0.46 \*

**Activities (2)**

Cardiomyopathogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Erythrocytogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

## COLONIN

Plant -- -- -- \*

## COPPER

Plant 6.0 13.0 -0.11 \*

**Activities (12)**

Antianemic	
Antiarthritic	
Antidiabetic 2-4 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antifatigue	
Antiinflammatory	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antinociceptive	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiosteoporotic	
Cardioprotective	
Contraceptive	Martindale's 28th
Hypocholesterolemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Immunomodulator	
Schizophrenogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

## CYCLOARTENOL

Seed Oil -- -- -- \*

**Activities (7)**

Antibacterial	
Antiinflammatory	
Antirheumatic 2-5 mg/man	
Antistaphylococcic	
Hypocholesterolemic	
Pesticide	
Ubiquot	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

## CYSTEIC-ACID

Plant -- -- -- \*

## CYSTEINE

Plant -- 200.0 -- \*

**Activities (13)**

AntiAddisonian	
Antibiotic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Anticataract	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticytotoxic	
Antiphthalmic	Martindale's 28th
Antioxidant	Jim Duke's personal files.
Antitumor	
Antiulcer	Martindale's 29th
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli.</i> Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Detoxicant	Merck 11th Edition
Glutathionergic	
Ophthalmic-Antialkali	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Pesticide	

## CYSTINE

Plant -- 108.0 -1.12 \*

**Activities (2)**

Adjuvant	Merck 11th Edition
Antihomocystinuric	Martindale's 29th

## D-FRUCTOSE

Plant 4160.0 5000.0 \*

## D-GLUCOSE

Plant 5340.0 15000.0 \*

**Activities (1)**

Antisecretory

## D-SUCROSE

Root -- -- \*

## D-XYLOSE

Plant -- -- \*

## DAUCOSTERIN

Plant -- 300.0 \*

## DAUCOSTERINE

Plant -- 35.0 \*

## DEXTROSE

Plant -- -- \*

**Activities (1)**

Sweetener 0.74 x sucrose	Martindale's 28th
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## DIASTASE

Plant -- -- \*

## DIBUTYL-PHTHALATE

Root Essent. Oil 9860.0 29274.0 \*

## ECHINOCYSTIC-ACID

Plant -- -- \*

## ELEMOL

Root Essent. Oil 2959.0 14637.0 \*

**Activities (2)**

Antiacyetylcholinesterase IC50=34 ug/ml

Antiulcer

## EO

Root -- -- \*

## ESCI

Plant -- -- \*

## Activities (40)

Antiasthmatic	
Antibradykinic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticapillarihemorrhagic 1-2 ivn	
Anticapillary-Fragility	
Antieclamptic	
Antiedemic 0.5 mg/kg ivn	
Antiepiglottitic	
Antiexudative	
Antiflu	
Antigingivitic	
Antihemorrhoidal	Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart. 393 pp.
Antiherpetic	Economic & Medicinal Plant Research, 5: 195.
Antihistaminic	
Antiinflammatory orl	
Antioxidant	
Antiperiodontic	
Antiphlebitic	
Antipleuritic	
Antiraucedo	
Antirhinitic	
Antithrombotic	
Antitonsilitic	
Antiulcer	
Antivaricose	
Antiviral	
Cancerostatic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Corticomimetic	
Corticosterogenic	
Diuretic	
Fungicide	
Hemolytic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hyaluronidase-Inhibitor IC50=150 uM	
Lymphagogue	
Natriuretic	
Nephrotoxic >20 mg/man/day	
Pesticide	
Pituitary-Stimulant	
Thymolytic	
Vasoprotective	
Venotonic	Tyler, V.E.. 1982. The Honest Herbal. George F. Stickley Co., Philadelphia PA. 263 pp.

## ESTRADIOL

Plant -- -- \*

## Activities (3)

Carcinogenic (Breast)
Carcinogenic (Endometrium)
Estrogenic

## ESTROL

Plant -- -- \*

## ESTRONE

Plant -- -- \*

## Activities (8)

Antiimpotence	Martindale's 28th
Antimenopausal 0.7-2.8 mg/day/orl/wmn	Martindale's 29th
Antiprostatadenomic	
Antivaginitic	
Aphrodisiac	
Carcinogenic	
Estrogenic 0.1-5 mg/woman/day	Martindale's 28th
Transdermal	

ETHYL-MACHAERINATE	Plant	--	--	*
FALCALINOL	Root	--	558.3	*
FAT	Plant	--	10000.0	-0.61
FERULIC-ACID	Plant	--	--	*
<b>Activities (61)</b>				
Allelopathic	Holappa, L.D., and Blum*, U. 1991. Effects of Exogenously Applied Ferulic Acid, a Potential Allelopathic Compound, on Leaf Growth, Water Utilization, and Endogenous Abscisic Acid Levels of Tomato, Cucumber, and Bean. <i>J. of Chemical Ecology</i> , 17(5): 865.			
Analgesic	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 69.			
Antiaggregant	Ozaki, Y. and Ma, J-P. 1989. Inhibitory Effects of Tetramethylpyrazine and Ferulic Acid on Spontaneous Movement of Rat Uterus in Situ. <i>Chem. Pharm. Bull.</i> 38(6): 1620-1623, 1990.			
Antiallergic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.			
Antiarrhythmic				
Antibacterial	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Anticancer (Colon)				
Anticancer (Forestomach)				
Anticancer (Liver)				
Anticancer (Skin)				
Anticarcinogenic				
Antidysmenorrheic				
Antiestrogenic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antihepatotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antiherpetic				
Antiinflammatory	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.			
Antileukemic IC50=25-56 ug/ml	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.			
Antimitotic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antimutagenic	Ki Soon Rhee. Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health, Ch.18.			
Antineoplastic (Stomach)				
Antinitrosaminic	Ki Soon Rhee. Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health, Ch.18.			
Antioxidant 3,000 uM				
Antioxidant IC51=200 ppm				
Antioxidant 1/3 quercetin				
Antioxidant 1/2 BHA				
Antioxidant EC50=9-15 ug/ml				
Antiradicular EC50=9-15 ug/ml				
Antiradicular IC50=116-124 uM				
Antiserotonin	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antispasmodic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.			
Antithrombic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.			
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antitumor (Colon)				
Antitumor (Forestomach)				
Antitumor (Liver)				
Antitumor (Skin)				
Antitumor-Promoter IC46=10 uM	Cancer Research, 48: 5941.			
Antiviral	Vlietinck, A.J. and Domisse, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.			
Arteriodilator	Ozaki, Y. and Ma, J-P. 1989. Inhibitory Effects of Tetramethylpyrazine and Ferulic Acid on Spontaneous Movement of Rat Uterus in Situ. <i>Chem. Pharm. Bull.</i> 38(6): 1620-1623, 1990.			
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.			
Candidicide	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Cardiac	Ozaki, Y. and Ma, J-P. 1989. Inhibitory Effects of Tetramethylpyrazine and Ferulic Acid on Spontaneous Movement of Rat Uterus in Situ. <i>Chem. Pharm. Bull.</i> 38(6): 1620-1623, 1990.			
Cholagogue	Pharmazie, 46: 156, 1991.			
Choleretic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.			
Fungicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.			
Hepatoprotective	Mills, Simon and Bone, Kerry. 2000. Phytotherapy. Churchill Livingston, Edinburgh.			

Hepatotropic	
Herbicide	Angewandte Botanik 68(5/6)=1994. Page 195.
Hydrocholerectic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hypolipidemic	
Immunostimulant	Economic & Medicinal Plant Research, 1: 124.
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
Metal-Chelator	McEvily, A.J., Iyengar, R., and Gross, A.T. Inhibition of Polyphenol Oxidase by Phenolic Compounds. Phenolic Compounds in Food and Their Effects on Health, Ch.25.
Ornithine-Decarboxylase-Inhibitor	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.
Pesticide	
Phagocytotic	
Preservative	Merck 11th Edition
Prostaglandigenic	
Prostaglandin-Synthesis-Inhibitor 0.58-3.2 mM	Xu, L. N., Yu, W. G., Tian, J. Y., Liu, Q. Y. 1990. Effect of Sodium Ferulate on Arachidonic Acid Metabolism. Yao Hsueh Hsueh Pao, 25(6): 412-416.
Sunscreen	Chemical Marketing Reporter; a weekly tabloid, 9/10/92.
Uterosedative 30-100 mg/kg ivn rat	Ozaki, Y. and Ma, J-P. 1989. Inhibitory Effects of Tetramethylpyrazine and Ferulic Acid on Spontaneous Movement of Rat Uterus in Situ. Chem. Pharm. Bull. 38(6): 1620-1623, 1990.

FIBER	Plant	59000.0	245000.0	0.16	*
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#### Activities (15)

Angiotensin-Receptor-Blocker	
Antidiabetic	
Antihypertensive	
Antiobesity	
Antitumor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiulcer	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Beta-Blocker	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	
Diuretic	
Hypocholesterolemic	
Hypotensive 10 g/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Hypouricemic	
Laxative	
Vasodilator	

FOLACIN	Plant	--	68.0	1.6	*
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#### Activities (15)

AntiSpina-Bifida	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antianemic 5-20 mg/man/day	
Anticervicaldysplastic 8-30 mg/wmn/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticheilitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antigingivitic 2-5 mg/day/man	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiglossitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antimyelotoxic 5 mg/day/orl/man	Martindale's 29th
Antineuropathic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiperiodontitic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiplaque	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antipsychotic	Martindale's 29th
Hematopoietic	Merck 11th Edition
Uricosuric	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Xanthine-Oxidase-Inhibitor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

FOLIC-ACID	Plant	--	68.0	1.39	*
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**Activities (23)**

AntiSpina-Bifida	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antianemic 5-20 mg/man/day	
Anticervicaldysplastic 8-30 mg/wmn/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticheilitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticoronal 400 ug/man/day	
Antidementia 10-20 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidepressant 800 ug/day	
Antigingivitic 2-5 mg/day/man	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiglossitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antigout 10-40 mg/day	
Antiinfertility	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antimetaplastic 10 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antimyelotoxic 5 mg/day/orl/man	Martindale's 29th
Antineuropathic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiperiodontal 1 mg day	
Antiplaque	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antipolyp (preventive)	
Antipsychotic	Martindale's 29th
Cancer-Preventive	
Hematopoietic	Merck 11th Edition
Immunostimulant	
Uricosuric	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Xanthine-Oxidase-Inhibitor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

## FORMIC-ACID

## Plant

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**Activities (13)**

Acaricide	
Antiseptic	
Antisyncopic	
Astringent	Merck 11th Edition
Corrosive	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Counterirritant	Merck 11th Edition
FLavor FEMA 500-2,500	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungistat	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Fungitoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Irritant	
Pesticide	
Preservative	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Toxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

## FRUCTOSE

## Tissue Culture

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**Activities (8)**

Antialcoholic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antidiabetic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antihangover	
Antiketotic	Merck 11th Edition
Antinauseant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Laxative	
Neoplastic	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Sweetener 2 x glucose	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

## FRUCTOSE

## Root

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3400.0

-0.52

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**Activities (8)**

Antialcoholic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antidiabetic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antihangover	
Antiketotic	Merck 11th Edition
Antinauseant	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Laxative	
Neoplastic	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Sweetener 2 x glucose	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.

## FUMARIC-ACID

Plant -- -- \*

**Activities (7)**

Acidulant	Martindale's 28th
Antidermatitic	Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart.</i> 393 pp.
Antihepatocarcinogenic IC100=1% (diet)	Akao, M. and Kuroda, K. 1990. Inhibitory Effect of Fumaric Acid on Hepatocarcinogenesis by Thioacetamide in Mice. <i>Chem. Pharm. Bull.</i> 38(7): 2012-2014, 1990.
Antioxidant	Merck 11th Edition
Antipsoriac	Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart.</i> 393 pp.
Antitumor	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
FLavor FEMA 50-3,600	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

## GALACTOSE

Plant -- -- \*

**Activities (1)**

Sweetener 0.32 x sucrose	Martindale's 28th
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## GALACTOSE

Root -- -- \*

**Activities (1)**

Sweetener 0.32 x sucrose	Martindale's 28th
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## GALACTURONIC-ACID

Plant -- -- \*

## GAMMA-SELINENE

Plant -- -- \*

## GERMACRENE-D

Plant -- -- \*

**Activities (2)**

Pesticide	
Pheromone	

## GERMANIUM

Plant -- -- \*

## GINSENG-TRISACCHARIDE

Plant -- 35.0 \*

## GINSENIN

Plant -- -- \*

**Activities (2)**

Antidiabetic	
Hypoglycemic	

## GINSENOSIDE-A-1

Root -- -- \*

## GINSENOSIDE-A-1

Shoot -- 800.0 \*

## GINSENOSIDE-F-11

Leaf -- -- \*

## GINSENOSIDE-F2

Shoot -- -- \*

## GINSENOSIDE-F2

Root -- 180.0 \*

## GINSENOSIDE-FRC

Root -- -- \*

## GINSENOSIDE-R-O

Root 700.0 1000.0 -1.0 \*

**Activities (4)**

Antiaggregant  
Antiedemic  
Antiinflammatory 10-200 mg/kg orl  
Fibrinolytic

GINSENOSIDE-R-O

Plant

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**Activities (4)**

Antiaggregant  
Antiedemic  
Antiinflammatory 10-200 mg/kg orl  
Fibrinolytic

GINSENOSIDE-R-O

Rhizome

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**Activities (4)**

Antiaggregant  
Antiedemic  
Antiinflammatory 10-200 mg/kg orl  
Fibrinolytic

GINSENOSIDE-R-O

Leaf

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**Activities (4)**

Antiaggregant  
Antiedemic  
Antiinflammatory 10-200 mg/kg orl  
Fibrinolytic

GINSENOSIDE-R-O

Tissue Culture

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**Activities (4)**

Antiaggregant  
Antiedemic  
Antiinflammatory 10-200 mg/kg orl  
Fibrinolytic

GINSENOSIDE-RA

Leaf

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GINSENOSIDE-RA-Q

Plant

--

52.0

\*

GINSENOSIDE-RB

Plant

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\*

**Activities (1)**

Antimyocardotic Huang, K. C. 1993. *The Pharmacology of Chinese Herbs*. CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RB-1

Tissue Culture

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**Activities (14)**

Antiamnesic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antipsychotic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antistress	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antitumor	Economic & Medicinal Plant Research, 6: 189.
Antiulcer	Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176)
CNS-Sedative	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Calcium-Antagonist 200 uM	
Corticosteroidogenic 70 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypoglycemic	
Hypothermic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM cat	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Neurogenic	
Tranquilizer	Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176)
Vasodilator	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

**Activities (14)**

Antiamnesic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antipsychotic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antistress	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antitumor	Economic & Medicinal Plant Research, 6: 189.
Antiulcer	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
CNS-Sedative	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Calcium-Antagonist 200 uM	
Corticosteroidogenic 70 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Hypoglycemic	
Hypothermic	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM cat	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Neurogenic	
Tranquilizer	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

**Activities (14)**

Antiamnesic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antipsychotic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antistress	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antitumor	Economic & Medicinal Plant Research, 6: 189.
Antiulcer	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
CNS-Sedative	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Calcium-Antagonist 200 uM	
Corticosteroidogenic 70 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Hypoglycemic	
Hypothermic	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM cat	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
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Tranquilizer	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
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Antitumor	Economic & Medicinal Plant Research, 6: 189.
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**Activities (14)**

Antiamnesic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antipsychotic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
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Antitumor	Economic & Medicinal Plant Research, 6: 189.
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Neurogenic	
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Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RB-2

Leaf

4200.0

9300.0

-1.0

\*

**Activities (8)**

Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Hypocholesterolemic 10 mg/kg/day ipr rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Hypoglycemic 10 mg/kg/day ipr rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Hypotriglyceridemic 10 mg/kg/day ipr rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Lipolytic 10 mg/kg/day ipr rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
MDR-Inhibitor 100 uM	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Proteinogenic	

GINSENOSIDE-RB-2

Tissue Culture

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**Activities (8)**

Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
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Proteinogenic	

GINSENOSIDE-RB-2

Rhizome

--

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\*

**Activities (8)**

Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
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Proteinogenic	

GINSENOSIDE-RB-2

Root

200.0

1000.0

-1.0

\*

**Activities (8)**

Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypocholesterolemic 10 mg/kg/day ipr rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
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MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Proteinogenic	

GINSENOSIDE-RB-2

Shoot

--

1050.0

-1.0

\*

**Activities (8)**

Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypocholesterolemic 10 mg/kg/day ipr rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
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MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Proteinogenic	

GINSENOSIDE-RB-2

Plant

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43.0

\*

**Activities (8)**

Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypocholesterolemic 10 mg/kg/day ipr rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
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Lipolytic 10 mg/kg/day ipr rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Proteinogenic	

GINSENOSIDE-RB-3

Leaf

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**Activities (2)**

Calcium-Antagonist 200 uM	
Calcium-Antagonist 300 mg/kg rat	

GINSENOSIDE-RB-3

Root

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300.0

1.0

\*

**Activities (2)**

Calcium-Antagonist 200 uM	
Calcium-Antagonist 300 mg/kg rat	

GINSENOSIDE-RB-3

Shoot

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1000.0

\*

**Activities (2)**

Calcium-Antagonist 200 uM	
Calcium-Antagonist 300 mg/kg rat	

GINSENOSIDE-RC

Leaf

2200.0

3900.0

-1.0

\*

**Activities (6)**

Calcium-Antagonist 200 uM	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Lipogenic 50 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Prostaglandin-Synthesis-Inhibitor 500 ug/ml	Park, C. W. 1992. The Effects of Ginseng Components on Arachidonic Acid Metabolism. <i>Korean J Ginseng Science</i> , 16(1): 69-71.
Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

## GINSENOSIDE-RC

## Tissue Culture

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**Activities (6)**

Calcium-Antagonist 200 uM	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Lipogenic 50 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
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Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

## GINSENOSIDE-RC

## Rhizome

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**Activities (6)**

Calcium-Antagonist 200 uM	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Lipogenic 50 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
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Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

## GINSENOSIDE-RC

## Root

630.0

3100.0

-1.0

\*

**Activities (6)**

Calcium-Antagonist 200 uM	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Lipogenic 50 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Prostaglandin-Synthesis-Inhibitor 500 ug/ml	Park, C. W. 1992. The Effects of Ginseng Components on Arachidonic Acid Metabolism. <i>Korean J Ginseng Science</i> , 16(1): 69-71.
Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

## GINSENOSIDE-RC

## Plant

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**Activities (6)**

Calcium-Antagonist 200 uM	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Lipogenic 50 mg/kg	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
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Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

## GINSENOSIDE-RD

## Tissue Culture

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**Activities (3)**

Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 50 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Neurogenic	

GINSENOSIDE-RD

Shoot

--

1600.0

-1.0

\*

**Activities (3)**

Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 50 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Neurogenic	

GINSENOSIDE-RD

Rhizome

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**Activities (3)**

Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 50 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Neurogenic	

GINSENOSIDE-RD

Root

950.0

7700.0

-1.0

\*

**Activities (3)**

Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 50 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Neurogenic	

GINSENOSIDE-RD

Plant

--

15.0

\*

**Activities (3)**

Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 50 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Neurogenic	

GINSENOSIDE-RD

Leaf

10000.0

22900.0

-1.0

\*

**Activities (3)**

Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
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Neurogenic	

GINSENOSIDE-RD-1

Root

3400.0

3700.0

\*

GINSENOSIDE-RE

Leaf

12600.0

17800.0

-1.0

\*

**Activities (5)**

Analgesic 10 mg/kg mus	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Vasodilator	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RE

Plant

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1450.0

\*

**Activities (5)**

Analgesic 10 mg/kg mus	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Vasodilator	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RE

Tissue Culture

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**Activities (5)**

Analgesic 10 mg/kg mus	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Vasodilator	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RE

Shoot

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200.0

-1.0

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**Activities (5)**

Analgesic 10 mg/kg mus	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Vasodilator	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RE

Root

200.0

13800.0

-1.0

\*

**Activities (5)**

Analgesic 10 mg/kg mus	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Calcium-Antagonist 200 uM	
Corticosteroidogenic 35 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Vasodilator	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RE-2

Leaf

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GINSENOSIDE-RE-2

Root

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GINSENOSIDE-RE-3

Leaf

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GINSENOSIDE-RE-3

Root

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GINSENOSIDE-RF

Root

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**Activities (4)**

Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Calcium-Antagonist 60-200 uM	
Calcium-Antagonist IC50=40 uM rat	
MDR-Inhibitor 100 uM	Hasegawa,H.,Sung,J.H.,Matsumiya,S.,Uchiyama,M.,Inouye,Y.,Kasai,R.,Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.

GINSENOSIDE-RF

Leaf

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**Activities (4)**

Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Calcium-Antagonist	60-200 uM
Calcium-Antagonist	IC50=40 uM rat
MDR-Inhibitor 100 uM	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.

## GINSENOSIDE-RF

## Tissue Culture

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**Activities (4)**

Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Calcium-Antagonist	60-200 uM
Calcium-Antagonist	IC50=40 uM rat
MDR-Inhibitor 100 uM	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.

## GINSENOSIDE-RF

## Plant

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25.0

\*

**Activities (4)**

Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Calcium-Antagonist	60-200 uM
Calcium-Antagonist	IC50=40 uM rat
MDR-Inhibitor 100 uM	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.

## GINSENOSIDE-RG

## Plant

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**Activities (1)**

Vasodilator	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
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## GINSENOSIDE-RG

## Root

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**Activities (1)**

Vasodilator	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
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## GINSENOSIDE-RG-1

## Plant

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48.0

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**Activities (13)**

Antiaggregant	
Antifatigue	Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176)
Antistress	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Aphrodisiac	
CNS-Stimulant	Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176)
Calcium-Antagonist	
200 uM	
Homeostatic	
Hypoglycemic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Pyrogenic 50 mg/kg ipr mus	Takagi, K. 1977. <i>Pharmacological Studies on Ginseng</i> . Korean Ginseng Studies, II Hwa Co., Ltd., Seoul, South Korea, 1977: 346-357.
Stimulant	Williamson, E. M. and Evans, F. J. <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Vasodilator	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

## GINSENOSIDE-RG-1

## Leaf

2200.0

3500.0

-1.0

\*

**Activities (13)**

Antiaggregant

Antifatigue	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Antistress	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Aphrodisiac	
CNS-Stimulant	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Calcium-Antagonist 200 uM	
Homeostatic	
Hypoglycemic	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Pyrogenic 50 mg/kg ipr mus	Takagi, K. 1977. Pharmacological Studies on Ginseng. Korean Ginseng Studies, II Hwa Co., Ltd., Seoul, South Korea, 1977: 346-357.
Stimulant	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RG-1

Shoot

820.0

1000.0

-1.0

\*

**Activities (13)**

Antiaggregant

Antifatigue	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Antistress	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Aphrodisiac	
CNS-Stimulant	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Calcium-Antagonist 200 uM	
Homeostatic	
Hypoglycemic	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Pyrogenic 50 mg/kg ipr mus	Takagi, K. 1977. Pharmacological Studies on Ginseng. Korean Ginseng Studies, II Hwa Co., Ltd., Seoul, South Korea, 1977: 346-357.
Stimulant	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RG-1

Rhizome

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**Activities (13)**

Antiaggregant

Antifatigue	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Antistress	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Aphrodisiac	
CNS-Stimulant	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Calcium-Antagonist 200 uM	
Homeostatic	
Hypoglycemic	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
MDR-Inhibitor 100 uM	Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. <i>Planta Med</i> , 61(5):409-413.
Pyrogenic 50 mg/kg ipr mus	Takagi, K. 1977. Pharmacological Studies on Ginseng. Korean Ginseng Studies, II Hwa Co., Ltd., Seoul, South Korea, 1977: 346-357.
Stimulant	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Vasodilator	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RG-1

Tissue Culture

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**Activities (13)**

Antiaggregant

Antifatigue Wagner &amp; Wolff, eds. 1977. New Natural Products (RS164. I56. 176)

Antistress Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Antitumor Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor &amp; Frost, London. 791 pp.

Aphrodisiac

CNS-Stimulant Wagner &amp; Wolff, eds. 1977. New Natural Products (RS164. I56. 176)

Calcium-Antagonist 200 uM

Homeostatic

Hypoglycemic Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

MDR-Inhibitor 100 uM Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. *Planta Med*, 61(5):409-413.

Pyrogenic 50 mg/kg ipr mus Takagi, K. 1977. Pharmacological Studies on Ginseng. Korean Ginseng Studies, II Hwa Co., Ltd., Seoul, South Korea, 1977: 346-357.

Stimulant Williamson, E. M. and Evans, F. J. Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Vasodilator Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RG-1

Root

300.0

8600.0

-1.0

\*

**Activities (13)**

Antiaggregant

Antifatigue Wagner &amp; Wolff, eds. 1977. New Natural Products (RS164. I56. 176)

Antistress Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Antitumor Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor &amp; Frost, London. 791 pp.

Aphrodisiac

CNS-Stimulant Wagner &amp; Wolff, eds. 1977. New Natural Products (RS164. I56. 176)

Calcium-Antagonist 200 uM

Homeostatic

Hypoglycemic Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

MDR-Inhibitor 100 uM Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. *Planta Med*, 61(5):409-413.

Pyrogenic 50 mg/kg ipr mus Takagi, K. 1977. Pharmacological Studies on Ginseng. Korean Ginseng Studies, II Hwa Co., Ltd., Seoul, South Korea, 1977: 346-357.

Stimulant Williamson, E. M. and Evans, F. J. Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Vasodilator Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

GINSENOSIDE-RG-2

Plant

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50.0

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**Activities (3)**

Antiaggregant

Calcium-Antagonist 60-200 uM

MDR-Inhibitor 100 uM Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. *Planta Med*, 61(5):409-413.

GINSENOSIDE-RG-2

Root

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80.0

-1.0

\*

**Activities (3)**

Antiaggregant

Calcium-Antagonist 60-200 uM

MDR-Inhibitor 100 uM Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. *Planta Med*, 61(5):409-413.

GINSENOSIDE-RG-2

Leaf

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**Activities (3)**

Antiaggregant

Calcium-Antagonist 60-200 uM

MDR-Inhibitor 100 uM Hasegawa,H., Sung,J.H., Matsumiya,S., Uchiyama,M., Inouye,Y., Kasai,R., Yamasaki,K. 1995. Reversal of Daunomycin and Vinblastine Resistance in Multidrug-Resistance P388 Leukemia in vitro through Enhanced Cytotoxicity by Triterpenoids. *Planta Med*, 61(5):409-413.

GINSENOSIDE-RG-3

Root

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**Activities (2)**

Antiangiogenic  
Antitumor

GINSENOSIDE-RG-3	Plant	--	32.0	*	
<b>Activities (2)</b>					
Antiangiogenic					
Antitumor					
GINSENOSIDE-RH-2	Shoot	--	--	*	
GINSENOSIDE-RH-2	Root	--	--	*	
GINSENOSIDE-RH-2	Rhizome	--	18600.0	*	
GINSENOSIDE-RH1	Plant	--	20.0	*	
<b>Activities (2)</b>					
Calcium-Antagonist 200 uM					
Hepatoprotective	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 211.				
GINSENOSIDE-RH1	Rhizome	--	9800.0	*	
<b>Activities (2)</b>					
Calcium-Antagonist 200 uM					
Hepatoprotective	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 211.				
GINSENOSIDE-RH1	Root	--	--	*	
<b>Activities (2)</b>					
Calcium-Antagonist 200 uM					
Hepatoprotective	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 211.				
GINSENOSIDE-RH1	Shoot	--	--	*	
<b>Activities (2)</b>					
Calcium-Antagonist 200 uM					
Hepatoprotective	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 211.				
GINSENOSIDE-RQ	Plant	--	25.0	*	
GINSENOSIDES	Root	24400.0	38800.0	-0.52	*

**Activities (18)**

Adaptogenic	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiaggregant	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticancer	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antidiuretic 126 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antishock	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Calcium-Antagonist	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Corticosterogenic	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Ethanolytic	
Gonadotropic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypocholesterolemic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypoglycemic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypotensive	
Immunomodulator	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Interferonogenic	
Lactogenic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Mycorelaxant	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Phagocytotic	
Thyrotropic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

## GINSENOSIDES

## Plant

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**Activities (18)**

Adaptogenic	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiaggregant	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticancer	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
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Antishock	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Calcium-Antagonist	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Corticosterogenic	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Ethanolytic	
Gonadotropic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypocholesterolemic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypoglycemic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypotensive	
Immunomodulator	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Interferonogenic	
Lactogenic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Mycorelaxant	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Phagocytotic	
Thyrotropic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

## GINSENOSIDES

## Leaf

41400.0

55800.0

\*

**Activities (18)**

Adaptogenic	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiaggregant	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticancer	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antidiuretic 126 mg/kg	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antishock	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Calcium-Antagonist	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Corticosterogenic	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Ethanolytic	
Gonadotropic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypocholesterolemic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypoglycemic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hypotensive	
Immunomodulator	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Interferonogenic	
Lactogenic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Mycorelaxant	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Phagocytotic	
Thyrotropic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

## GINSENOYNE-G

Root -- 5.7 1.0 \*

## GLUCOSE

Root -- 3200.0 -0.91 \*

**Activities (7)**

Acetylcholinergic	
Antiedemic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antihepatotoxic	Merck 11th Edition
Antiketotic	Merck 11th Edition
Antivaricose	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Hyperglycemic	Merck 11th Edition
Memory-Enhancer	Science News, 138: 189, 1990.

## GLUCURONIC-ACID

Plant -- -- \*

**Activities (4)**

Antidote (Camphor)	
Antidote (Morphine)	
Antihepatotoxic	
Detoxicant	Merck 11th Edition

## GLUCURONOLACTONE

Plant -- -- \*

## GLUTAMIC-ACID

Plant 396.0 4450.0 -1.35 \*

**Activities (8)**

Antialkali? 500-1,000 mg/day/orl/man	Martindale's 29th
Antiepileptic	
Antihyperammonemic	Martindale's 29th
Antilithic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostatic 125-250 mg 3 x/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiretardation	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Anxiolytic	Merck 11th Edition
Neurotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.

## GLUTAMOSE

Plant -- -- \*

## GLUTARIC-ACID

Plant -- -- \*

## GLYCINE

Plant 23.0 1540.0 -0.65 \*

**Activities (12)**

Antiacid	Martindale's 29th
Antialdosteronic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antidote (Hypoglycin-A)	Martindale's 29th
Antiencephalopathic	Martindale's 29th
Antigastritic	Martindale's 29th
Antiprostatic 125-250 mg 3 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antipruritic	Merck 11th Edition
Antisickling	Ekeke, G.I. and Shode, F.O. 1988. Phenylalanine is the Predominant Antisickling Agent in <i>Cajanus cajan</i> Seed Extract. <i>Planta Medica</i> 56(1): 41, 1990.
Antiulcer	Martindale's 29th
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Neuroinhibitor	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Uricosuric	

GUAIOL

Root Essent. Oil      4649.0      11276.0

\*

**Activities (3)**

Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Pesticide	
Termitifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

GUANIDINE

Plant      --      --

\*

**Activities (6)**

Antimyasthenic 10-35 mg/kg/day	
Convulsant	
Hepatotoxic	
Hypertensive	
Hypoglycemic	
Myostimulant	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

GUANINE

Plant      --      --

\*

**Activities (1)**

Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
-----------	--

GYPENOSIDE-F-11

Root      --      --

\*

GYPENOSIDE-XVII

Root      --      300.0

\*

HEPTADECA-1-8-DIENE-4-6-DIYNE-3-10-DIOL

Root      --      15.0      1.0

\*

HEPTADECA-1-EN-4,6-DIYN-3,9-DIOL

Plant      --      --

\*

HISTIDINE

Plant      320.0      1100.0      -1.3

\*

**Activities (7)**

Antiarteriosclerotic	
Antinephritic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antioxidant	
Antiulcer	
Antiuremic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Oxidant	

HYDROXYCHOLINE

Plant      --      1.0

\*

HYDROXYPROLINE

Plant      --      --

\*

**Activities (1)**

Vulnerary	
-----------	--

IODINE

Plant      --      --

\*

**Activities (12)**

Acnegenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antibacterial	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antigoiter	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiseptic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antithyroid	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiviral	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Dermatitigenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Fungicide	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Goitrogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Hyperthyroid >1 mm/day/diet	
Protisticide	
Thyrotropic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

IRON

Plant 49.0 407.0 -0.26 \*

**Activities (6)**

Antiakathisic	Martindale's 29th
Antianemic	Martindale's 29th
Anticanker	
Anticheilitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antimenorrhagic 100 mg/day/wmn/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Prooxidant	

ISOBUTYRIC-ACID

Plant -- 15.0 \*

**Activities (2)**

Irritant	
Transdermal	Zbovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.

ISOLEUCINE

Plant 151.0 370.0 -1.36 \*

**Activities (3)**

Antiencephalopathic?	Martindale's 29th
Antipellagric	Martindale's 28th
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

ISOVALERIC-ACID

Plant -- 7.0 -1.0 \*

**Activities (5)**

Flavor 1-16	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry
Irritant	Zbovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Perfumery	Merck 11th Edition
Sedative	
Tranquilizer	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

KAEMPFEROL

Plant -- -- \*

**Activities (75)**

11B-HSD-Inhibitor	
5-Lipoxygenase-Inhibitor IC50 (uM)=20	
Aldose-Reductase-Inhibitor 100 uM	Oliveira, T. T., Nagem, T. J., Miranda, L. C. G., Paula, V. F., Teixeira, M. A. 1997. Inhibitory Action on Aldose Reductase by Soybean Flavonoids. J Braz Chem Soc, 8(3): 211-213.
Antiaflatoxin IC50=8.73 uM	
Antiaflatoxin IC50=3.28 ppm	
Antiaggregant 30 uM	
Antiallergic	
Antibacterial 20 ug/ml	
Anticancer	
Antifertility 250 mg/kg/day/60 days/orl rat	Kumar, P., Dixit*, V.P., and Khanna, P. Antifertility Studies of Kaempferol: Isolation and Identification from Tissue Culture of some Medicinally Important Plant Species. Plantes medicinales et phytotherapie, 23: 193-201, 1989.
Antigingivitic 20 ug/ml	

Antiherpetic 23-92 ug/ml	Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. <i>J. of Natural Products</i> 55(12):1732-1740, 1992.
Antihistaminic	Williamson, E. M. and Evans, F. J. <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiimplantation	
Antiinflammatory 20 mg/kg	
Antiinflammatory 200 mg/kg ipr rat	
Antileukemic IC50=3.1 ug/ml	Life Sciences 55: 1061.
Antilymphocytic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antimutagenic ID50=10-40 nM	Phenolic Compounds in Food and Their Effects on Health. <i>Antioxidants &amp; Cancer Prevention</i> . Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Antioxidant IC50=40 uM	
Antioxidant 3/4 quercetin	
Antioxidant IC50=1.2 ug/ml	
Antiperiodontic 20 ug/ml	
Antiplaque 20 ug/ml	
Antiradicular 7 x quercetin	
Antiseptic 20 ug/ml	
Antiserotonin 200 mg/kg ipr rat	
Antispasmodic	Williamson, E. M. and Evans, F. J. <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antistaphylococcic	
Antitumor	
Antitumor-Promoter	Yasukawa, K., Takido, M., Takeuchi, M., Sato, Y., Nitta, K., and Nakagawa, S. 1989. Inhibitory Effects of Flavonol Glycosides on 12-O-Tetradecanoylphorbol-13-acetate-Induced Tumor Promotion. <i>Chem. Pharm. Bull.</i> 38(3): 774-776, 1990.
Antiulcer 50-200 mg/kg ipr rat	
Antiviral 23-92 ug/ml	
Apoptotic 60 uM	
Aromatase-Inhibitor IC12=1 uM/l	Journal of Medicinal Food 2: 235.1999.
COX-2-Inhibitor	
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Carcinogenic	Hutchings, A, Scott, AH, Lewis, G, and Cunningham, A. 1996. <i>Zulu Medicinal Plants. An inventory</i> . University of Natal Press, Pietermaritzburg. 450 pp.
Choleretic	Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
Copper-Chelator	
Cyclooxygenase-Inhibitor IC50 (uM) =20	
Cytotoxic	
Diaphoretic?	Lawrence Review of Natural Products, Dec-90.
Diuretic	
Estrogenic EC50=0.1-25 uM/l	Journal of Medicinal Food 2: 227.1999.
Estrogenic EC50=0.56 uM	
Fungicide 20 ug/ml	Father Nature's Farmacy: The aggregate of all these three-letter citations.
HIV-RT-Inhibitor IC50=50-150 ug/ml	Garcia, J., Morin,* C., Nyasse, B., Sondengam, B-L., Tchouankeu, J-C., and Tsamo, E. Complete Structural Assignments Of An Ergosterol Derivative From Entandrophragma utile. <i>Journal of Natural Products</i> , 54(1): 136-142, 1991.
Hepatoprotective IC50=5.46 uM	
Hepatoprotective IC50=1.30 ppm	
Hypotensive	
ICAM-1-Inhibitor	
Inotropic	
Iodothyronine-Deiodinase-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
JNK-Inhibitor	
Lipoxygenase-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
MAO-Inhibitor	
Mutagenic	
NO-Inhibitor IC50=13.9 uM	
Natriuretic	
Neuroprotective	
PAF-Inhibitor	
Pesticide	
Protisticide	Meckes, M., Calzada, F., Tapia-Contreras, A., Cedillo-Rivera, R. 1999. Antiprotozoal Properties of <i>Helianthemum glomeratum</i> . <i>Phytotherapy Research</i> , 13(2): 102-105.

Quinone-Reductase-  
Inducer 3 uM

TNF-alpha-Inhibitor  
IC50=3.99 uM

Teratologic

Topoisomerase-I-  
Inhibitor Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. *Toxicol Ind Health*, 14: 223-237.

Topoisomerase-II-  
Inhibitor IC50=8.1 ug/ml Constantinou, A., Mehta, R., Runyan, C., Rao, K., Vaughan, A., Moon, R. 1995. Flavonoids as DNA Topoisomerase Antagonists and Poisons: Structure-Activity Relationships. *J Natural Products*, 58: 217-225.

Tyrosinase-Inhibitor  
ID50=230 uM

Uterotrophic EC50=0.1-  
25 uM/l Journal of Medicinal Food 2: 227.1999.

Vasodilator

cAMP-  
Phosphodiesterase-  
Inhibitor

iNOS-Inhibitor IC50=<15 uM

iNOS-Inhibitor  
IC50=13.9 uM

KAEMPFEROL-3-GLUCOGALACTOSIDE	Plant	--	--	*
KETOGLUTARIC-ACID	Plant	--	5500.0	*
L-RHAMNOSE	Plant	--	--	*
LEDOL	Root Essent. Oil	6831.0	7680.0	*
LEUCINE	Plant	420.0	1530.0	-1.27
<b>Activities (2)</b>				
Anticephalopathic	Martindale's 29th			
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.			
LEVULOSE	Plant	--	--	*
<b>Activities (1)</b>				
Sweetener 1.73 x sucrose		Martindale's 28th		
LINOLEIC-ACID	Plant	--	--	*

## Activities (27)

5-Alpha-Reductase-Inhibitor	Economic & Medicinal Plant Research, 6: 189.
AntiMS	
Antiacne	
Antialopecic	
Antianaphylactic	Economic & Medicinal Plant Research, 6: 189.
Antiandrogenic	
Antiarteriosclerotic	
Antiarthritic	Economic & Medicinal Plant Research, 6: 189.
Anticoronal	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antieczemic	Economic & Medicinal Plant Research, 6: 189.
Antifibrinolytic	Economic & Medicinal Plant Research, 1: 53.
Antigranular	
Antihistaminic	Economic & Medicinal Plant Research, 6: 189.
Antiinflammatory IC50=31 uM	
Antileukotriene-D4 IC50=31 uM	
Antimenorragic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostatic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Carcinogenic	Science News, 146: 421.
Comedolytic	
Hepatoprotective	
Hypocholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. <i>CRC Handbook of Lipids in Human Nutrition</i> . CRC Press. Boca Raton, FL. 233 pp.)
Immunomodulator	Economic & Medicinal Plant Research, 6: 189.
Insectifuge	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Metastatic	Science News, 146: 421.
Nematicide	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp.
Propecic	

## LINOLENIC-ACID

Plant -- -- \*

## LUPEOL

Seed Oil -- -- \*

## Activities (21)

AntiEBV	
Antiangiogenic 30-50 ug/ml	
Antiedemic	
Antiflu	
Antihyperglycemic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antiinflammatory 1/3 indomethacin	
Antilithic 25 mg/kg/day	
Antimalarial IC50=46.8 ug/ml	Khalid, S.A., Farouk, A., Geary**, T.G., and Jensen, J.B. 1985. Potential Antimalarial Candidates From African Plants: An In Vitro Approach Using <i>Plasmodium falciparum</i> *. <i>Journal of Ethnopharmacology</i> , 15: 201-209, 1986.
Antioxalate 25 mg/kg/day	
Antioxidant 25 mg/kg/day	
Antiperoxidant 25 mg/kg/day	
Antiprostaglandin	
Antirheumatic	
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antiurethrotic	
Antiviral	
Cytotoxic 50-500 ppm	
FPTase-Inhibitor IC50=65 ug/ml	
Hypotensive	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Pesticide	
TOPO-2-Inhibitor IC50=10.4 uM	

## LYSINE

Plant 2080.0 2100.0 -0.99 \*

**Activities (4)**

Antialkalotic	Martindale's 29th
Antiherpetic 0.5-3 g/day	
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hypoarginanemic 250 mg/kg	Martindale's 29th

**MAGNESIUM**

Plant 980.0 2200.0 -0.58 \*

**Activities (65)**

AntiCFS	
AntiLyme 400-1,000 mg	
AntiMS	
AntiPMS 400-800 mg/day/wmn/orl	
AntiPMS 400-800 mg/day/wmn orl	
AntiRaynaud's 280-350 mg/day	
Antiaggregant 400 mg/day	
Antialcoholic	
Antianginal 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antianorectic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antianxiety 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiarrhythmic 400 mg/day	
Antiarthritic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiasthmatic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiatherosclerotic 400 mg/day	
Anticephalagic	
Anticlimacteric 500-750 mg/day	
Anticonvulsant	Facciola, S. 1998. Cornucopia - A Source Book of Edible Plants. Kampong Publications, Vista CA. 713 pp.
Anticorony 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidiabetic 400-800 mg/man/day	
Antidysmenorrheic 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiendometriotic 500 mg/day	
Antienteric	
Antiepileptic 450 mg/day	
Antifatigue	
Antifibromyalgic 200-300 mg 3x/day	
Antigastrotic	
Antiglaucomic	
Antihyperkinetic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive	
Antihypoglycemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiinflammatory 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinsomniac	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antilithic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimastalgic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimenopausal 500-750 mg/day	
Antimigraine 200 mg/day/man	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antimirtral-valve-prolapse	
Antinephrolytic	
Antineurotic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antosteoporotic 500-1,000 mg/day/wmn/orl	
Antiplate 500-1,000 mg/day	
Antiretinopathic 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antispasmodic	
Antispasmophilic 500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antistress 500-750 mg/day	
Antistroke 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95

Antisyndrome-X 400 mg/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Anxiolytic 500-750 mg/day	
CNS-Depressant	Facciola, S. 1998. Cornucopia - A Source Book of Edible Plants. Kampong Publications, Vista CA. 713 pp.
Calcium-Antagonist	
Cardioprotective	
Diuretic	
Hypocholesterolemic 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Hypotensive 260-500 mg/day	
Immunomodulator	
Insulinogenic 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Laxative 300-500 mg/day	
Litholytic	
Myorelaxant 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Neurotransmitter	
Tranquilizer 500-750 mg/day	
Uterorelaxant 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Vasodilator	

MALEIC-ACID	Plant	--	--	*
MALIC-ACID	Plant	--	--	*

#### Activities (15)

Antiatherosclerotic	
Antibacterial	
Antifibromyalgic 300 mg 3x/day	
Antioxidant Synergist	Merck 11th Edition
Antiseborrheic	
Antiseptic	Martindale's 29th
Antitubercular	
Antitumor	Economic & Medicinal Plant Research, 6: 235.
Bacteristat	
Bruchiphobe	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Hemopoietic	
Laxative?	Lawrence Review of Natural Products, Sep-91.
Mycobactericide	
Pesticide	
Sialogogue	Martindale's 29th

MALONIC-ACID	Plant	--	--	*
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#### Activities (1)

Irritant Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

MALONYL-GINSENOSIDE-RB-1	Rhizome	--	--	*
MALONYL-GINSENOSIDE-RB-1	Root	--	--	*
MALONYL-GINSENOSIDE-RB-2	Rhizome	--	--	*
MALONYL-GINSENOSIDE-RB-2	Root	--	--	*
MALONYL-GINSENOSIDE-RC	Rhizome	--	--	*
MALONYL-GINSENOSIDE-RC	Root	--	--	*
MALONYL-GINSENOSIDE-RD	Root	--	--	*
MALONYL-GINSENOSIDE-RD	Rhizome	--	--	*
MALTOL	Plant	--	--	*

**Activities (11)**

Anticonvulsant	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
Antifatigue	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antioxidant	
CNS-Sedative	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
FLavor FEMA 5-250	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungistat 1,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Motor-Depressant	Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. <i>Bioactive Volatile Compounds from Plants</i> . ACS Symposium Series 525. Amer. Chem. Soc., Washington DC
Pesticide	
Sedative	Buchbauer et al, e.g Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. <i>Bioactive Volatile Compounds from Plants</i> . ACS Symposium Series 525. Amer. Chem. Soc., Washington DC
Sweetener	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

MALTOSE Root -- 3800.0 -1.0 \*

**Activities (2)**

Antidiabetic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Sweetener 0.32 x sucrose	Martindale's 28th

MALTOSE Plant -- -- \*

**Activities (2)**

Antidiabetic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Sweetener 0.32 x sucrose	Martindale's 28th

MANGANESE Plant 19.0 156.0 0.42 \*

**Activities (14)**

AntiPMS	
Antialcoholic	Forest H. Nielsen, USDA, Grand Forks, various publications.
Antianemic	Martindale's 28th
Antiarthritic	
Antidiabetic 3-5 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antidiabetic 10-30 mg/man/day	
Antidiscotic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antidyskinetic	Martindale's 28th
Antiepileptic 450 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiosteoporotic	
Antitotic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antioxidant	
Antisyndrome-X 10-30 mg/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reservse insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Hypoglycemic 10-30 mg/man/day	

METHIONINE Plant 34.0 340.0 -0.85 \*

**Activities (15)**

Anticataract	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antidote (Acetaminophen) 10 g/16hr/man/orl	Martindale's 29th
Antidote (Paracetamol) 10 g/16hr/man/orl	Martindale's 29th
Antieczemic	
Antihepatotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antioxidant	
Antiparkinsonian 1-5 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Emetic	Martindale's 29th
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Glutathionigenic	Martindale's 29th
Hepatoprotective	
Lipotropic	Merck 11th Edition
Urine-Acidifier 200 mg/3x/day/man/orl	Martindale's 28th
Urine-Deodorant	Martindale's 29th

## METHYL-BUTYRIC-ACID

Plant -- -- \*

## MOLYBDENUM

Plant 10.0 14.0 1.72 \*

**Activities (2)**

Anticancer (Esophagus)?	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antitumor (Esophagus)?	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

## MORETENOL

Seed Oil -- -- \*

## MYRISTIC-ACID

Root -- -- \*

**Activities (6)**

Antioxidant IC71=60	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cosmetic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hypercholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
Lubricant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Nematicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.

## N-BUTYRIC-ACID

Plant -- 1.0 \*

**Activities (1)**

FLavor FEMA 30-300	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
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## N-CAPROIC-ACID

Plant -- 6.0 \*

## N-HEXADECANE

Root Essent. Oil -- 88900.0 \*

## N-VALERIC-ACID

Plant -- -- \*

## NIACIN

Plant 47.0 60.0 -0.23 \*

**Activities (39)**

Allergenic	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
AntiLyme 50 mg/day	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
AntiMeniere's	
AntiRaynaud's 1,500-4,000 mg/day	
Antiacrodynic	
Antiallergic 50 mg/2x/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antialzheimeran	
Antiambylopic	
Antianginal	
Anticataract	
Antichilblain	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Anticonvulsant 3 g/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antidementia	
Antidermatitic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antidiabetic	
Antidysphagic	
Antiepileptic 3 g/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antihangover 50 mg	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antihistaminic 50 mg 2x/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antihyperactivity 1.5-6 g/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiinsomnic 1 g/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antineurinalgic	
Antiparkinsonian 100 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antipellagric	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antiscotomic	
Antispasmodic 100 mg 2x/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antivertigo	
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	
Circulotonic	
Fibrinolytic	
Hepatoprotective	
Hepatotoxic	
Hypocholesterolemic 50-100 mg 3x/day	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Hypoglycemic	
Hypolipidemic	
Sedative	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Serotonergic	
Vasodilator	Martindale's 29th

**NICOTINIC-ACID**

Plant      14.0      16.0      -0.66      \*

**Activities (11)**

AntiCrohn's	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antichilblain 50 mg/3x/day	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antidote (pesticides)	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antischizophrenic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antithyrotoxic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Choleretic	
Hypocholesterolemic 1-6 g/man/day	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Hypoglycemic	
Insulinase-Inhibitor	Economic & Medicinal Plant Research, 6: 157.
Insulinotonic	Economic & Medicinal Plant Research, 6: 157.
Lipolytic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.

**NITROGEN**

Plant      15000.0      20000.0      0.03      \*

**NONACOSANE**

Plant      --      --      \*

**Activities (2)**

Antimutagenic 250  
ug/ml

Antiviral Abid Ali Khan, M.M., Jain, D.C., Bhakuni, R.S., Zaim, M., and Thakur, R.S. 1991. Occurrence of some antiviral sterols in *Artemisia annua*. *Plant Science*, 75: 161-165, 1991.

NONADECADIENOIC-ACID-METHYL-ESTER	Root Essent. Oil	27682.0	37935.0	*	
O-MONOMETHYLAMINOBENZOIC-ACID	Plant	--	--	*	
OCTADECADIENOIC-ACID-METHYL-ESTER	Root Essent. Oil	13701.0	56439.0	*	
OLEANOLIC-ACID	Root	600.0	980.0	1.54	*

**Activities (64)**

Abortifacient

AntiHIV IC50=21.8 ug/ml

AntiHIV EC50=1.7 ug/ml Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. *J. Nat. Prod.*, 61 (9): 1090-1095.

AntiPGE2 IC50=24 uM

AntiTGF-beta IC50=19-24 uM

Antiallergic

Antiarrhythmic 40 mg/kg

Antiatherosclerotic

Antibacterial MIC=625-1,250 ug/ml

Anticarcinomic Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Anticariogenic

Leung, A. Y. and Foster, S. 1995. *Encyclopedia of Common Natural Ingredients* 2nd Ed. John Wiley & Sons, New York. 649 pp.

Anticomplement IC40-50 0.01 mM/l gpg

Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. *Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)*, 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.

Anticomplement IC80-90 0.05 mM/l gpg

Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. *Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)*, 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.

Antiedemic IC36=40 mg/kg ipr rat

Antifertility

Antigingivitic MIC=625-1,250 ug/ml

Antihepatotoxic

Antiinflammatory 40 mg/kg ipr Aquino, R., De Feo, V., De Simone, F., Pizza, C.\* and Cirino, G. Plant Metabolites. New Compounds And Anti-Inflammatory Activity Of Uncaria tomentosa. *Journal of Natural Products*, 54(2): 453-459, 1991.

Antiischemic 40 mg/kg

Antileukemic Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antileukotriene IC50=17 uM

Antimalarial IC50=70-89 ug/ml

Antinephritic IC50=19-24 uM

Antioxidant Balanehru, S. and Nagarajan, B. 1992. Intervention of Adriamycin Induced Free Radical Damage. *Biochemistry International* 28(4): 735-744, 1992.

Antioxidant IC46=10 uM

Antiperiodontic MIC=625-1,250 ug/ml

Antiperoxidant IC30=200 ug/ml

Antiplaque MIC=625-1,250 ug/ml

Antiplasmoidal IC50=70-89 ug/ml

Antisarcomic

Antiseptic MIC=625-1,250 ug/ml

Antitumor

Antitumor (Breast) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antitumor (Colon) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antitumor (Kidney) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antitumor (Lung) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antitumor (Pancreas) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antiulcer >carbenoxolone

Antiviral EC50=1.7 ug/ml Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. *J. Nat. Prod.*, 61 (9): 1090-1095.

Antiviral IC50=21.8 ug/ml	Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.				
Aromatase-Inhibitor					
Beta-Blocker					
Beta-Glucuronidase-Inhibitor ~100 mg/kg					
COX-2-Inhibitor IC50=295 uM/					
COX-2-Inhibitor	Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from <i>Plantago major</i> , a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. J. Nat. Prod., 61(10): 1212-1215.				
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
Cardioprotective 40 mg/kg					
Cardiotonic					
Cyclooxygenase-Inhibitor					
Diuretic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.				
Elastase-Inhibitor IC50=~15 uM					
Hepatoprotective	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 211.				
Hypolipemic					
Hypotensive					
Immunomodulator					
Leucocytogenic					
NF-kB-Inhibitor					
Phagocytotic					
Piscicide	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.				
Prostaglandin-Synthesis-Inhibitor igs mus					
Sedative					
Uterotonic					
Vasopressor					
<b>OLEANOLIC-ACID</b>	<b>Plant</b>	<b>--</b>	<b>20.0</b>	<b>-1.2</b>	<b>*</b>

#### Activities (64)

Abortifacient	
AntiHIV IC50=21.8 ug/ml	
AntiHIV EC50=1.7 ug/ml	Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
AntiPGE2 IC50=24 uM	
AntiTGF-beta IC50=19-24 uM	
Antiallergic	
Antiarrhythmic 40 mg/kg	
Antiatherosclerotic	
Antibacterial MIC=625-1,250 ug/ml	
Anticarcinomic	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.
Anticariogenic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Anticomplement IC40-50 0.01 mM/l gpg	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Anticomplement IC80-90 0.05 mM/l gpg	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Antiedemic IC36=40 mg/kg ipr rat	
Antifertility	
Antigingivitic MIC=625-1,250 ug/ml	
Antihepatotoxic	
Antihyperlipidemic	
Antiinflammatory 40 mg/kg ipr	Aquino, R., De Feo, V., De Simone, F., Pizza, C.* and Cirino, G. Plant Metabolites. New Compounds And Anti-Inflammatory Activity Of Uncaria tomentosa. Journal of Natural Products, 54(2): 453-459, 1991.
Antiischemic 40 mg/kg	
Antileukemic	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.
Antileukotriene IC50=17 uM	
Antimalarial IC50=70-89 ug/ml	
Antinephritic IC50=19-24 uM	
Antioxidant	Balanehru, S. and Nagarajan, B. 1992. Intervention of Adriamycin Induced Free Radical Damage. Biochemistry International 28(4): 735-744, 1992.
Antioxidant IC46=10 uM	
Antiperiodontic MIC=625-1,250 ug/ml	
Antiperioxidant IC30=200 ug/ml	

Antiplaque MIC=625-1,250 ug/ml

Antiplasmodial IC50=70-89 ug/ml

Antisarcomic

Antiseptic MIC=625-1,250 ug/ml

Antitumor

Antitumor (Breast) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med.* 31(1):37-46.

Antitumor (Colon) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med.* 31(1):37-46.

Antitumor (Kidney) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med.* 31(1):37-46.

Antitumor (Lung) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med.* 31(1):37-46.

Antitumor (Pancreas) Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med.* 31(1):37-46.

Antiulcer >carbenoxolone

Antiviral EC50=1.7 ug/ml Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. *J. Nat. Prod.*, 61 (9): 1090-1095.

Antiviral IC50=21.8 ug/ml Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. *J. Nat. Prod.*, 61 (9): 1090-1095.

Aromatase-Inhibitor

Beta-Blocker

Beta-Glucuronidase-Inhibitor ~100 mg/kg

COX-2-Inhibitor IC50=295 uM

COX-2-Inhibitor Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from *Plantago major*, a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. *J. Nat. Prod.*, 61(10): 1212-1215.

Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Cardioprotective 40 mg/kg

Cardiotonic

Cyclooxygenase-Inhibitor

Diuretic Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Elastase-Inhibitor IC50=~15 uM

Hepatoprotective Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 211.

Hypolipemic

Hypotensive

Immunomodulator

Leucocytogenic

NF-kB-Inhibitor

Phagocytotic

Piscicide ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Prostaglandin-Synthesis-Inhibitor igs mus

Sedative

Uterotonic

Vasopressor

OLEIC-ACID

Root

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**Activities (18)**

5-Alpha-Reductase-Inhibitor

Allergenic

Alpha-Reductase-Inhibitor

Anemiagenic

Antialopecic

Antiandrogenic

Antiinflammatory  
IC<sub>50</sub>=21 uMAntileukotriene-D4  
IC<sub>50</sub>=21 uM

Cancer-Preventive

Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Choleretic 5 ml/man

Dermatitigenic

FLavor FEMA 1-30

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Hypocholesterolemic

Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)

Insectifuge

Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

Irritant

Merck 11th Edition

Percutaneostimulant

Seki, T., Toeda, C., Kawaguchi, T., Juni, K., Sugibayashi, K., and Morimoto, Y. 1990. Enhanced Transdermal Delivery of Zidovudine in Rats and Human Skin. Chem. Pharm. Bull. 38(11): 3086-3089, 1990.

Perfumery

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Propecic

**OLEIC-ACID**

Plant

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**Activities (18)**

5-Alpha-Reductase-Inhibitor

Allergenic

Alpha-Reductase-Inhibitor

Anemiagenic

Antialopecic

Antiandrogenic

Antiinflammatory  
IC<sub>50</sub>=21 uMAntileukotriene-D4  
IC<sub>50</sub>=21 uM

Cancer-Preventive

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Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

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Insectifuge

Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

Irritant

Merck 11th Edition

Percutaneostimulant

Seki, T., Toeda, C., Kawaguchi, T., Juni, K., Sugibayashi, K., and Morimoto, Y. 1990. Enhanced Transdermal Delivery of Zidovudine in Rats and Human Skin. Chem. Pharm. Bull. 38(11): 3086-3089, 1990.

Perfumery

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Propecic

**P-HYDROXYCINNAMIC-ACID**

Plant

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28.0

1.0

\*

**Activities (1)**

Antioxidant

Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

**PALMITIC-ACID**

Plant

--

30.0

-1.04

\*

**Activities (13)**

5-Alpha-Reductase-Inhibitor	
Antialopecic	
Antiandrogenic	
Antifibrinolytic	Economic & Medicinal Plant Research, 1: 53.
Antioxidant IC40=60	
FLavor FEMA 1	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Hemolytic	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
Hypercholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
Lubricant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Nematicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Pesticide	
Propecic	
Soap	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

PALMITIC-ACID

Root Essent. Oil      6543.0      41917.0      -1.15      \*

**Activities (13)**

5-Alpha-Reductase-Inhibitor	
Antialopecic	
Antiandrogenic	
Antifibrinolytic	Economic & Medicinal Plant Research, 1: 53.
Antioxidant IC40=60	
FLavor FEMA 1	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Hemolytic	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
Hypercholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
Lubricant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Nematicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Pesticide	
Propecic	
Soap	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

PALMITIC-ACID

Root      --      --      \*

**Activities (13)**

5-Alpha-Reductase-Inhibitor	
Antialopecic	
Antiandrogenic	
Antifibrinolytic	Economic & Medicinal Plant Research, 1: 53.
Antioxidant IC40=60	
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Hemolytic	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
Hypercholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
Lubricant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Nematicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Pesticide	
Propecic	
Soap	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

PALMITIC-ACID-ETHYL-ESTER

Root Essent. Oil      35913.0      73504.0      \*

**Activities (1)**

Calcium-Antagonist 0.5 g/kg scu rbt

PALMITIC-ACID-METHYL-ESTER

Root Essent. Oil      16744.0      63486.0      \*

PANACEN

Plant      --      --      \*

**Activities (3)**

Analgesic  
CNS-Stimulant  
Tranquilizer

Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

PANAQUILIN-E-1	Root	--	--		*
PANAQUILIN-G-2	Root	--	--		*
PANAQUILON	Plant	--	--		*
PANASENOSIDE	Shoot	--	--		*
PANAX-ACID	Plant	--	--		*
Panax-Polyacetylene-PQ-1	Root	--	75.8		*
Panax-Polyacetylene-PQ-2	Root	--	6.6		*
Panax-Polyacetylene-PQ-3	Root	--	29.1		*
Panax-Protein	Root	--	--		*
Panax-Protein	Leaf	--	--		*
Panaxadiol	Plant	6500.0	8960.0		*
Panaxadiol	Shoot	--	--		*
Panaxadiol	Root	3100.0	9600.0	1.0	*
Panaxan-A	Root	--	--		*

**Activities (1)**

Hypoglycemic Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Panaxan-B	Root	--	--		*
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**Activities (1)**

Hypoglycemic Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Panaxan-C	Root	--	--		*
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**Activities (1)**

Hypoglycemic Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Panaxan-D	Root	--	--		*
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**Activities (1)**

Hypoglycemic Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Panaxan-E	Root	--	--		*
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**Activities (1)**

Hypoglycemic Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Panaxasapogenin	Plant	--	--		*
Panaxasapogenol	Plant	--	--		*
Panaxatriol	Shoot	--	--		*
Panaxatriol	Root	1500.0	12540.0	1.0	*
Panaxatriol	Plant	7390.0	12450.0		*
Panaxic-acid	Plant	--	--		*

**Activities (4)**

Cardiotonic  
Hypocholesterolemic  
Tonic  
Vasotonic

Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

PANAXIN

Plant

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**Activities (5)**

CNS-Stimulant  
Cardiotonic  
Cerebrotonic  
Endocrin-Tonic  
Myostimulant

Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

PANAXOSIDE-A

Plant

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PANAXOSIDE-B

Plant

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PANAXOSIDE-C

Plant

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PANAXOSIDE-D

Plant

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PANAXOSIDE-E

Plant

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\*

PANAXOSIDE-F

Plant

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\*

PANAXYDIOL

Plant

--

--

\*

PANAXYDOL

Root

--

950.0

1.0

\*

**Activities (1)**

Cytotoxic ED50=0.02-16.4 ug/ml

PANAXYNOL

Plant

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**Activities (3)**

Antiaggregant  
Cytotoxic ED50=0.03-32.1 ug/ml  
Fibrinolytic

PANAXYTRIOL

Root

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59.1

-1.0

\*

**Activities (1)**

Cytotoxic ED50=0.17->70 ug/ml

PANTOTHENIC-ACID

Plant

7.0

10.0

-1.16

\*

**Activities (11)**

Antiallergic 100-500 mg/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.  
 Antiarthritic 500-2,000 mg/day  
 Anticephalagic Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.  
 Anticlaudificant? Martindale's 29th  
 Antidermatitic Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.  
 Antifatigue Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.  
 Antihypercholesterolemic 300 mg/meal Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.  
 Antiigelus? Martindale's 29th  
 Antiinsomniac? Martindale's 29th  
 Antirheumatitic? Martindale's 29th  
 Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

PECTIN

Plant

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**Activities (24)**

Antiatheromic 15 g/man/day	Cerda, J.J. Pectin in Health and Disease. HortScience, 25(12): 1485, 1990.
Antibacterial	
Antidiabetic 10 g/man/day/orl	
Antidiarrheic	Merck 11th Edition
Antienteric	
Antigallstone	
Antigastritic	
Antilithic	
Antimetastatic	
Antimutagenic	
Antiobesity	Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY.
Antitumor (Colon)	
Antitumor (Prostate)	
Antitussive	
Antiulcer	
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Chemopreventive	
Demulcent	
Fungicide	Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
Hemostat	
Hypocholesterolemic	
Hypoglycemic	Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY.
Peristaltic	
Pesticide	

## PELARGONIDIN-3-MONOGLUCOSIDE

Fruit Epidermis

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## PETROSELAIDIC-ACID

Plant

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## PETROSELINIC-ACID

Plant

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## PHENOLASE

Plant

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## PHENYLALANINE

Plant

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**Activities (7)**

AntiADD 587 mg/day/orl	Martindale's 29th
Antidepressant 50-4,000 mg/day/man	
Antiparkinsonian 200-500 mg/day/man	Martindale's 28th
Antisickling 690 ug/ml	
Antivitiligo 100 mg/kg/day/orl/man	Martindale's 29th
Monoamine-Precursor	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Tremorigenic 1,600-12,600 mg/man/day	Martindale's 28th

## PHOSPHORUS

Plant

2700.0

5200.0

0.77

\*

**Activities (4)**

Antiosteoporotic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Anxiolytic	
Immunostimulant	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Osteogenic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.

## POTASSIUM

Plant

6600.0

33800.0

0.84

\*

**Activities (14)**

Angiotensin-Receptor-Blocker	
Antiarrhythmic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antifatigue	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive	
Antispasmodic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antistroke	
Anxiolytic	
Beta-Blocker	
Cardioprotective 3,000-5,000 mg	
Cardiotoxic 18,000 mg/man/day	
Diuretic	
Hypotensive	
Vasodilator	

PROLINE	Plant	175.0	1120.0	-0.93	*
PROPIONIC-ACID	Plant	--	4.0		*

**Activities (6)**

FLavor FEMA 1- Fungicide	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry 36,000
2,500-36,000	
Irritant	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Perfumery	
Pesticide	
Rubefacient	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.

PROSTISOL	Plant	--	--		*
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**Activities (2)**

Antihepatoglycogenic
Hypoglycemic

PROTEIN	Root	80600.0	102500.0	-0.18	*
PROTEIN	Plant	--	122000.0	-0.42	*
PROTOPANAXADION	Plant	--	--		*
PROTOPANAXATRIOL	Plant	--	--		*
PSEUDO-GINSENO SIDE-F-11	Shoot	--	--		*
PSEUDO-GINSENO SIDE-F-11	Root	70.0	400.0		*
PULEGONE	Root Essent. Oil	--	260500.0		*

**Activities (28)**

AChE-Inhibitor	Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. &amp; Physiol.</i> , 23, 1985, 383-8.
Antiacylcholinesterase IC50=0.9 mM	
Antiacylcholinesterase IC50=136 ug/ml	
Antialzheimeran?	Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. &amp; Physiol.</i> , 23, 1985, 383-8.
Antibacterial	Economou, D., and Nahrstedt, A. 1991. Chemical, Physiological, and Toxicological Aspects of the Essential Oil of Some Species of the Genus <i>Bystropogon</i> *. <i>Planta Medica</i> , 57: 347, 1991.
Anticholinesterase	Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. &amp; Physiol.</i> , 23, 1985, 383-8.
Antihistaminic	Ortiz De Urbina, A.V., Martin, M.L., Montero, M.J., Carron, R., Sevilla, M.A., San Roman, L. 1989. Antihistaminic activity of pulegone on the guinea-pig ileum. <i>J. Pharm. Pharmacol.</i> 42: 295-296, 1990.
Antipyretic	
Avifuge	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	Economou, D., and Nahrstedt, A. 1991. Chemical, Physiological, and Toxicological Aspects of the Essential Oil of Some Species of the Genus <i>Bystropogon</i> *. <i>Planta Medica</i> , 57: 347, 1991.
Cerebrotoxic orl man	J. Aromatherapy 4: 24.
Encephalopathic 80 mg/kg orl rat	Lawrence Review of Natural Products, Jan-92.
FLavor FEMA 5-30	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	Economou, D., and Nahrstedt, A. 1991. Chemical, Physiological, and Toxicological Aspects of the Essential Oil of Some Species of the Genus <i>Bystropogon</i> *. <i>Planta Medica</i> , 57: 347, 1991.
Glutathionalytic	Lawrence Review of Natural Products, Jan-92.
Hallucinogenic	R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That:The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benificent Nature. The Risk of Herbal Preparations. <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R.
Hepatotoxic	Lewis, E.J. and Friedrich, E.C. 1989. The Essential Oil of Poliomimtha incana. <i>Planta Medica</i> 56(2): 224-226, 1990.
Herbicide IC50=1.5 uM	Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.
Insecticide	Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. &amp; Physiol.</i> , 23, 1985, 383-8.
Insectifuge	
Nephrotoxic	R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That:The Essential Pharmacology of Herbs and Spices. Tips 13:15-20 Huxtable, R.J. 1992b. The Myth of Benificent Nature. The Risk of Herbal Preparations. <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R.
Neurotoxic	
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Pesticide	
Pulifuge	
Pulmonotoxic	
Sedative	

## PYRUVIC-ACID

Plant -- 7000.0 \*

**Activities (1)**

FLavor FEMA 1-110	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
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## QUINQUEFOLAN-A

Root -- -- \*

**Activities (1)**

Hypoglycemic 10-100 ppm

## QUINQUEFOLAN-B

Root -- -- \*

**Activities (1)**

Hypoglycemic 10-100 ppm

## QUINQUEFOLAN-C

Root -- -- \*

**Activities (1)**

Hypoglycemic 10-100 ppm

## QUINQUENOSIDE-R-1

Root -- 100.0 1.0 \*

## RAFFINOSE

Plant -- -- \*

**Activities (1)**Flatogenic Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek (*Trigonella foenum graecum* L.). *Plant Foods for Human Nutrition*. 46: 77-84, 1994.

## RESIN

Plant -- -- \*

## RIBOFLAVIN

Plant -- 1.0 -0.73 \*

**Activities (15)**

AntiLyme 50 mg/day				
Antiarabiflavinotic 2-10 mg/day orl	Martindale's 28th			
Anticarpal-Tunnel 50 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.			
Anticataract 15 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.			
Anticephalagic				
Anticervicaldysplastic 1.6-10 mg/day				
Anticheilitic				
Antidecubitic				
Antiglossitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.			
Antikeratitic				
Antimigraine				
Antioxidant				
Antipellagric				
Antiphotophobic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.			
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.			

SACCHAROSE

Plant

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SAIKOSAPONIN-A

Plant

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**Activities (7)**

ACTH-genic				
Antiaggregate				
Antiflu				
Antiinflammatory	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antiviral				
Cortocosterone-genic ED50=0.3 mg/kg				
Hyperglycemic				

SAIKOSAPONIN-B

Plant

--

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SALICYLIC-ACID

Plant

--

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\*

#### Activities (34)

Aldose-Reductase-Inhibitor 724.6 uM	Toyomizu, M., Sugiyama, S., Jin, R. L., Nakatsu, T. 1993. Alpha-Glucosidase and Aldose Reductase Inhibitors: Constituents of Cashew, <i>Anacardium occidentale</i> , Nut Shell Liquids. <i>Phytotherapy Research</i> , 7(3): 252-254.
Analgesic	
Antiarthritic	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Antibacterial	Martindale's 28th
Antidandruff	A.L.L. Hunting. Encyclopedia of Shampoo Ingredients. Micelle Press, Cranford NJ. 467 pp.
Antidermatotic	
Antieczemic	
Antiichthyosic	Martindale's 29th
Antiinflammatory	Pharmazie, 46: 156, 1991.
Antineuragic	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Antioncyhomycotic	Martindale's 29th
Antioxidant	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Antiperiodic	
Antipodagric	
Antipsoriac	
Antipyretic	
Antirheumatic	
Antiseborrheic	
Antiseptic	A.L.L. Hunting. Encyclopedia of Shampoo Ingredients. Micelle Press, Cranford NJ. 467 pp.
Antitumor	
Antitympanitic	Merck 11th Edition
COX-2-Inhibitor	Newmark, T. M. and Schulick, P. 2000. Herbal Cox-2 Inhibition - Nature's Challenge to Arthritis, Cancer & Alzheimer's Disease. Hohm Press, Prescott AZ.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Comedolytic	Martindale's 29th
Cyclooxygenase-Inhibitor	
Dermatitogenic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Fungicide MIC 1,000 ug/ml	
Hypoglycemic	Economic & Medicinal Plant Research, 6: 158.
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
Keratolytic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	
Thermogenic 130 ppm	
Tineacide	Martindale's 29th
Ulcerogenic	

#### SAPONIN

Plant 7500.0 10000.0 -0.81 \*

#### SAPONINS

Root -- -- \*

#### Activities (5)

Antihepatomic
Antimutagenic
Antitumor (Lung)
Antitumor (Ovary)
Immunomodulator

#### SAPONINS

Leaf -- -- \*

#### Activities (5)

Antihepatomic
Antimutagenic
Antitumor (Lung)
Antitumor (Ovary)
Immunomodulator

#### SAPONINS

Flower -- -- \*

**Activities (5)**

Antihepatotoxic  
Antimutagenic  
Antitumor (Lung)  
Antitumor (Ovary)  
Immunomodulator

SERINE	Plant	289.0	1240.0	-1.34	*
<b>Activities (1)</b>					
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
<b>SILICON</b>					
<b>Activities (4)</b>					
Antiarteriosclerotic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
Antionychytopic					
Antiosteoporotic					
Cardioprotective					
SODIUM	Plant	500.0	4800.0	-0.04	*
<b>Activities (1)</b>					
Hypertensive	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
SQUALENE	Seed Oil	--	--		*
<b>Activities (10)</b>					
Antibacterial	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antioxidant					
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
Chemopreventive					
Immunostimulant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Lipoxygenase-Inhibitor	Chemical Express, 7: 297, 1992.				
Perfumery	Merck 11th Edition				
Pesticide					
Sunscreen					
SQUALENE-2-3-OXIDE	Seed Oil	--	--		*
STARCH	Plant	80000.0	320000.0	0.9	*
<b>Activities (5)</b>					
Absorbent	Martindale's 29th				
Antidote (Iodine)	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antinesidioblastosic	Martindale's 29th				
Emollient	Martindale's 29th				
Poultice	Martindale's 29th				
STEARIC-ACID	Plant	--	--		*
<b>Activities (8)</b>					
5-Alpha-Reductase-Inhibitor					
Cosmetic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
FLavor FEMA 2-4,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry				
Hypocholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)				
Lubricant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry				
Propecic					
Suppository	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				

## STIGMASTEROL

Root

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**Activities (12)**

Antihepatotoxic	
Antiinflammatory	Lawrence Review of Natural Products, 1995
Antinociceptive	
Antiophidic 2.3 mg ipr mus	Economic & Medicinal Plant Research, 5: 363.
Antioxidant IC33=10 uM	
Antiviral	Abid Ali Khan, M.M., Jain, D.C., Bhakuni, R.S., Zaim, M., and Thakur, R.S. 1991. Occurrence of some antiviral sterols in <i>Artemesia annua</i> . <i>Plant Science</i> , 75: 161-165, 1991.
Artemicide LC50=110 ppm	Jung, J.H., Pummangura, S., Chaichantipyuth, c., Patarapanich, C., and McLaughlin, J.L. 1989. Bioactive Constituents of <i>Melodorum fruticosum</i> . <i>Phytochemistry</i> . 29(5): 1667-1670. 1990.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Estrogenic	
Hypocholesterolemic	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp.
Ovulant	
Sedative	

## STIGMASTEROL

Plant

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500.0

1.58

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**Activities (12)**

Antihepatotoxic	
Antiinflammatory	Lawrence Review of Natural Products, 1995
Antinociceptive	
Antiophidic 2.3 mg ipr mus	Economic & Medicinal Plant Research, 5: 363.
Antioxidant IC33=10 uM	
Antiviral	Abid Ali Khan, M.M., Jain, D.C., Bhakuni, R.S., Zaim, M., and Thakur, R.S. 1991. Occurrence of some antiviral sterols in <i>Artemesia annua</i> . <i>Plant Science</i> , 75: 161-165, 1991.
Artemicide LC50=110 ppm	Jung, J.H., Pummangura, S., Chaichantipyuth, c., Patarapanich, C., and McLaughlin, J.L. 1989. Bioactive Constituents of <i>Melodorum fruticosum</i> . <i>Phytochemistry</i> . 29(5): 1667-1670. 1990.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Estrogenic	
Hypocholesterolemic	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp.
Ovulant	
Sedative	

## STRONTIUM

Plant

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## SUCCINIC-ACID

Plant

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40000.0

1.0

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**Activities (7)**

Additive FEMA 200-2,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Antifeedant	
Bruchiphobe	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Dye	Merck 11th Edition
Perfumery	Merck 11th Edition
Pesticide	

## SUCROSE

Root

39000.0

158600.0

0.35

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**Activities (14)**

Aggregant	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antihiccup 1 tsp	Martindale's 29th
Antiophthalmic	Martindale's 29th
Antioxidant	Merck 11th Edition
Atherogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Collyrium	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Demulcent	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Flatugenic	Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek ( <i>Trigonella foenum graecum L.</i> ). Plant Foods for Human Nutrition. 46: 77-84, 1994.
Hypercholesterolemic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Preservative	Merck 11th Edition
Sweetener 1 x sucrose	Merck 11th Edition
Triglycerigenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Uricogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Vulnerary	Martindale's 29th

## SUCROSE

## Plant

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420.0

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**Activities (14)**

Aggregant	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antihiccup 1 tsp	Martindale's 29th
Antiophthalmic	Martindale's 29th
Antioxidant	Merck 11th Edition
Atherogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Collyrium	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Demulcent	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Flatugenic	Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek ( <i>Trigonella foenum graecum L.</i> ). Plant Foods for Human Nutrition. 46: 77-84, 1994.
Hypercholesterolemic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Preservative	Merck 11th Edition
Sweetener 1 x sucrose	Merck 11th Edition
Triglycerigenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Uricogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Vulnerary	Martindale's 29th

## SULFUR

## Plant

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1500.0

-1.0

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**Activities (14)**

Acarifuge	
Antiacne	Martindale's 29th
Antiarthritic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidandruff	Martindale's 29th
Antigrey	Martindale's 29th
Antiosteoarthritic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiseborrheic	Martindale's 29th
Antiseptic	Martindale's 29th
Comedogenic	Martindale's 29th
Keratolytic	Martindale's 29th
Laxative	Martindale's 29th
Parasiticide	Martindale's 29th
Pesticide	
Scabicide	Martindale's 29th

## SUPEROXIDE-DISMUTASE

## Root

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**Activities (5)**

Anticystitic	
Antidote (Paraquat)	
Antiinflammatory	
Antiosteoarthritic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antioxidant	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.

## TANNIN

## Plant

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**Activities (35)**

Anthelmintic	
AntiHIV	
Antibacterial	
Anticancer	
Anticariogenic	
Antidiarrheic	
Antidysenteric	
Antihepatotoxic	
Antihypertensive	
Antilipolytic	
Antimutagenic	
Antinephritic	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
Antiophidic	Economic & Medicinal Plant Research, 5: 363.
Antioxidant IC50=1.44 ug/ml	
Antioxidant 1/3 quercetin	
Antiradicular 500 mg/kg/day orl mus	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
Antiradicular 1/3 quercetin	
Antirenitic	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
Antitumor	
Antitumor-Promoter	
Antiulcer	
Antiviral	
Cancer-Preventive	HerbalGram No. 22 - Spring 1990, page 14.
Carcinogenic	
Chelator	
Cyclooxygenase- Inhibitor	
Glucosyl- Transferase-Inhibitor	
Hepatoprotective	
Immunosuppressant	
Lipoxygenase- Inhibitor	
MAO-Inhibitor	
Ornithine- Decarboxylase- Inhibitor	
Pesticide	
Psychotropic	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
Xanthine-Oxidase- Inhibitor	

## TARTARIC-ACID

## Plant

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**Activities (6)**

Acidifier	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Additive	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Antioxidant Synergist	Martindale's 29th
FLavor FEMA 500-10,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Irritant	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals.</i> VCH Publishers, New York. 3560-4253.
Sequestrant	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

## TENUIFOLIC-ACID

## Plant

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## THREONINE

## Plant

584.0

1070.0

-1.3

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**Activities (4)**

Antioxidant?	
Antiulcer	Martindale's 29th
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
FLavor FEMA 1,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

TIGLIC-ACID

Plant

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**Activities (1)**

Perfumery	Merck 11th Edition
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TRANS-BETA-FARNESENE

Root Essent. Oil

9768.0

63517.0

0.44

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**Activities (2)**

Insectifuge	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Pesticide	

TYROSINE

Plant

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**Activities (8)**

Antidepressant?	
Antiencephalopathic	Martindale's 29th
Antiparkinsonian 100 mg/kg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiphenylketonuric	Martindale's 29th
Antiulcer 256 mg scu	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. <i>Drug Dosage in Laboratory Animals: A Handbook</i> . (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.
Antiulcer 400 mg/kg ipr rat	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. <i>Drug Dosage in Laboratory Animals: A Handbook</i> . (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Monoamine-Precursor	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).

URACIL

Plant

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URIDINE

Plant

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URONIC-ACID

Plant

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VALINE

Plant

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82.0

-1.4

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**Activities (3)**

Antiencephalopathic	Martindale's 29th
Essential	
FLavor FEMA 1,000-2,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

VANADIUM

Plant

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0.02

-1.0

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**Activities (16)**

ATPase-Inhibitor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiatherosclerotic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidiabetic ?25-100 ug/man/day?	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reservse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antiinfertility	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiinsulinogenic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reservse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antimanic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antisyndrome-X ?25-100 ug/man/day?	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reservse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Cancer-Preventive?	
Cardioprotective?	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Hypocholesterolemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Hypoglycemic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reservse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Hypotensive	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reservse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Hypotriglyceridemic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reservse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Nephrotoxic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reservse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Pancreatoxic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reservse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Toxic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reservse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95

**VANILLIC-ACID**

Plant -- 33.0 -0.75 \*

**Activities (24)**

Aldose-Reductase-Inhibitor 100 uM/l	
Allelopathic	
Anthelmintic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antibacterial 1.5-15 mg/ml	Recio, M. C., Rios, J. L., and Villar, A., A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, Phytotherapy Research, 3(4), 1989, 117-125.
Anticancer	
Antifatigue	
Antiinflammatory	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antileukemic IC50=25-56 ug/ml	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.
Antioxidant IC21=30 ppm	
Antioxidant 1/3 BHA	
Antiperoxidant IC15-65=100-200 ug/ml	
Antiradicular 7 x quercetin	
Antiseptic	
Antisickling	Planta Medica, 56(6): 681, 1990.
Antitumor	
Antitumor-Promoter	
Ascaricide	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Choleretic	
Fungicide	
Immunosuppressant	
Laxative	=ICMR(Indian Council of Medical Research) 1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Pesticide	
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

**VIT-B12**

Plant 0.4 0.6 \*

**XYLOSE**

Root -- -- \*

**Activities (3)**

Antidiabetic	Martindale's 28th
Diagnostic	Merck 11th Edition
Dye	

**Activities (77)**

ACE-Inhibitor	
Analgesic	
AntiBPH 25-60 mg/day	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
AntiCrohn's	
AntiHIV	
Antiacne 135 mg/day	
Antiacrodermatitic 8-34 mg/day/orl/chd	Martindale's 29th
Antialcoholic	
Antialopecic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antialzheimeran 50 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiangiogenic	
Antianorexic	Martindale's 29th
Antiarthritic 50 mg/3x/day/orl/man	
Anticanker 100 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Anticataract 30 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Anticoeliac	Martindale's 28th
Anticold 50 mg	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Anticolitic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Anticoronal 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Antidandruff	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antidementia	
Antidiabetic 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Antidote (Cadmium)	Let's Live, May 1989.
Antidysgeuzic	
Antieczemic 150 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiencephalopathic	Martindale's 29th
Antiepileptic 100 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antifibrotic 30 mg	
Antifuruncular 45 mg/3x/day/man	Martindale's 28th
Antihangover 15 mg	
Antiherpetic? 25-60 mg/day	
Antiimpotence	Martindale's 29th
Antiinfective 50 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiinfertility 60 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antiinsomniac	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antilepric	Martindale's 29th
Antileukonychic	
Antilymphomtic	
Antimaculitic	
Antimetastatic	
Antineuropathic	
Antinyctalopic	
Antiobesity 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Antosteoporotic	
Antiperiodontic	
Antiplaque	Martindale's 29th
Antiprolactin	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostatic 50 mg/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antirheumatic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Antiseptic 50 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antispase-Tire 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Antistomatitic 50 mg/man/3x/day	Martindale's 28th
Antisynrome-X 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Antitinnitit 60-120 mg/day	Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp.
Antitriglyceride 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance</i> . John Wiley & Sons, New York. 272 pp. \$24.95
Antiulcer 50 mg/3x/day/man	Martindale's 28th
Antiulcer 88 mg/rat/day/15 days	
Antiviral?	Martindale's 29th

Astringent	Martindale's 28th
Collagenic	
Copper-Antagonist	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance.</i> John Wiley & Sons, New York. 272 pp. \$24.95
Deodorant	Martindale's 29th
Detoxicant (Alcohol)	
Ergogenic	
Hypotensive 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance.</i> John Wiley & Sons, New York. 272 pp. \$24.95
Immunomodulator	
Immunostimulant	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine.</i> Avon Books, New York. 509pp.
Immunosuppressant 300 mg/day/6 wks/orl/man	Martindale's 29th
Insulinogenic 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance.</i> John Wiley & Sons, New York. 272 pp. \$24.95
Leptogenic 30-60 mg/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. <i>Syndrome X - The complete nutritional program to prevent and reserve insulin resistance.</i> John Wiley & Sons, New York. 272 pp. \$24.95
Mucogenic	Li, K.M. Effect of zinc sulphate on acetic acid-induced gastric ulceration in rats. <i>J. Pharm. Pharmacol.</i> 42: 657-659, 1990.
NF-kB-Inhibitor	
Pesticide	
Spermigenic 60 mg/day	Werbach, M. 1993. <i>Healing with Food.</i> Harper Collins, New York, 443 pp.
Testosteronogenic 60 mg/day	Werbach, M. 1993. <i>Healing with Food.</i> Harper Collins, New York, 443 pp.
Trichomonicide	Martindale's 29th
Vulnerary	Martindale's 28th